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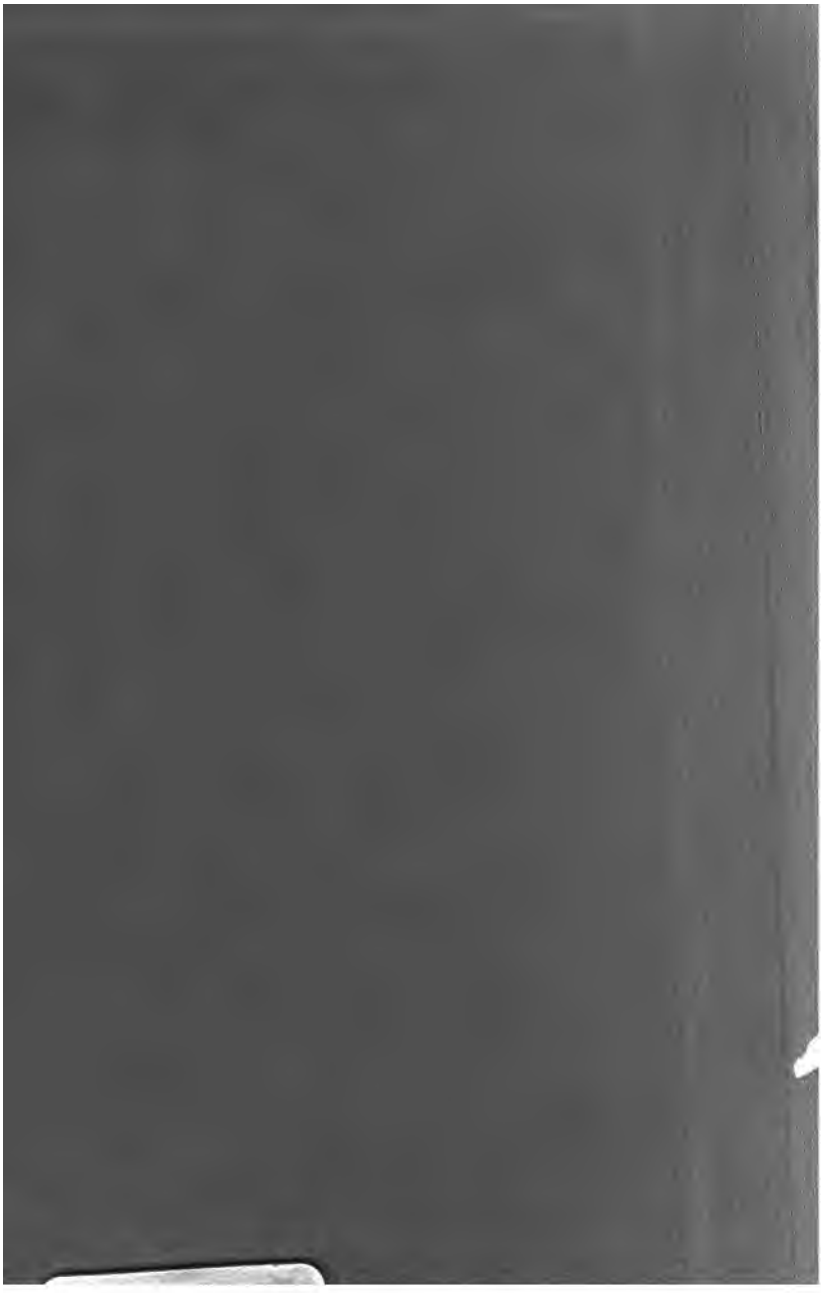

OCATIONAL ARITHMETIC

WITH LESSONS IN

SPELLING, LETTER WRITING AND BUSINESS FORMS

BY

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PREFACE

After several years of experience as supervising principal in night-school work, where he has faced the growing tendency to make education more practical, the author of this work has felt strongly the need of something strictly practical in arithmetic and business forms. Moreover, consultation with prominent school men has proved that this thought is shared by many other teachers. This work is the result of this well-defined need.

It was intended to make this book strictly practical in every sense of the word. The lessons are all live subjects and such as are met with in everyday life. While very little fraction work is involved, it is believed that enough is used for the daily needs of life. There is some work in percentage, but only the very simplest forms, which, as with the fraction work, are sufficient for ordinary purposes.

The author is indebted, to a great extent, to the many business men who have so kindly given the data with which to form many of the lessons. In fact, the work was made possible only through the kindness of these persons, as there is very little subject-matter of this nature in print.

It is not claimed that the figures used in this book are true for every locality. The student must realize that prices fluctuate from time to time and vary in different localities. However, it is believed that the figures used will represent a close average.

It was the intention that no subject should be repeated. It is desired to make the work interesting, and variety lends a hand in this respect. This does not mean that one lesson is enough to exhaust a subject. If more work is desired in any one subject, it can easily be arranged from the data given in that particular lesson. The teacher can easily formulate a dozen problems from any one of these lessons.

When this work was started and tested, it was intended for night-school work exclusively. The reader will doubtless know that the night-school session generally lasts two hours, and the course covers about seventy-five nights. To some, one lesson may seem short for a whole evening; but the author feels from actual experience that a whole session may profitably be spent on one subject. However, to provide for more rapid work, the text has been extended to one hundred lessons. While originally intended for night schools, it will also, the author believes, find a place in the highest grades of the grammar school. It would seem that a year or a half-year spent on this work by any class would be invaluable.

The author will be very thankful for any suggestions or criticisms relating to the work.

H. D. V.

TROY, N.Y.
October, 1914.

TO TEACHERS

THE object of this work is to arouse the pupil's interest by the use of material derived from the life of the community. It is quite true that books are but helps. So, much of the success of any work of this nature will depend upon the manner in which it is handled by the teacher. However, it is believed that, with a copy of this book in the hands of the pupil, the work will be made both interesting and practical. In fact, this has already been proved to be the case in several schools. As will be seen by the arrangement of the lessons, it is the aim to take up the work in regular pedagogical order. The plan of procedure suggested is as follows:

1. The questions for oral answers should be used to get the attention of the pupil at the outset. Get the pupil to talk. If a city, railroad, or anything pertaining to commercial geography is mentioned, take advantage of the fact. Draw out important points in connection with such names.

2. Announce the subject and read over the problem with the pupils. Some development may be necessary in the line of further oral work. Draw out as much as possible and lead the pupils to draw conclusions from their answers. Follow the old rule of proceeding from the known to the related unknown.

3. With this preparation, the pupil should be in the right mood to take up the problem successfully and apply himself to the work. Good form in writing the solution is very essential, and this will require much individual help.

Since it is desired to correlate spelling, language, and writing with the arithmetic, the pupil may well take up the spelling and business forms in the latter part of the lesson, applying the words by using

them in appropriate sentences. Neatness and accuracy are very essential in the business forms. Secure samples of business forms whenever possible.

4. Similar business problems may be given if there is time. The teacher or the student may easily construct problems similar to the one in the lesson, for further drill.

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Lesson 1. Carriage Painting

State two reasons for painting wagons. What are the most common colors found on wagons? Locate Providence and tell one important fact about the city. What is a company?

A carriage painter, Mr. A. B. Jones, agreed to paint a wagon for Mr. John Snell, doing a first class job for $16. The painter bought his paint of Woodward & Co., Providence, R.I. He bought one box of drop black, Valentine's brand, at 40¢; one box of roadcart red at 75¢; two pounds of white lead at 8¢ a pound; one pound of body filler at 18¢; one quart of turpentine at 80¢ a gallon; one pint of boiled linseed oil at 80¢ a gallon; one pint of rubbing varnish at $2 a gallon; one dozen sheets of sandpaper at one cent each; one pint of gear varnish at $4 a gallon; one pint of West's top dressing at $1 a quart; one striping brush at 10¢; and one varnish brush at 49¢.

The time required for doing the work was four days of eight hours each, actual labor. Find how much the painter realized for his work. How much did he receive a day? How much an hour?

FOR SPELLING AND DEFINING[1]

carriage	linseed	dressing	labor	telephone
painter	varnish	actual	assuming	sandpaper
boiled	striping	required	probably	turpentine

BUSINESS EXERCISES

1. Make out the bill as sent to the painter from Woodward & Co.
2. Write a thirty-day note as the painter would give it in settlement for the supplies.
3. Assume that you had the wagon painted. Write to the painter to find out how soon the wagon will be ready for delivery.
4. Write the probable reply from the painter.

[1] See the suggestions "To Teachers," page 5.

Lesson 2. Harness Making

What determines the size of a harness? Name some parts of a harness. Give reasons why leather is used for making harness. Name some other uses of leather. Tell how we get leather.

A harness maker, Mr. Fred Smith, received an order for one heavy double farm harness, size two inch (2 in. trace). He agreed to build the harness of first class material for $60. Accordingly, the following material was bought of W. D. O'Brien, Detroit, Mich.: one set of hames (two pairs), at $1.50 a pair; one pair of heavy scotch collars at $5 each; 4 blinders at 25¢ each; trimmings, consisting of brass buckles, snaps, bits, rosettes, headfronts, ink, wax, thread, and edge-filler, to the amount of $4.40. Two sides of first grade, oak tanned leather, each weighing twenty pounds at 44¢ a pound, were bought of Barnard Brothers, Rome, N.Y. Freight and cartage amounted to $1. The harness maker worked ten days of eight hours each in making the harness. He sold 10 lb. of scrap leather at 20¢ a pound from the above stock. Find how much he realized for making the harness. How much a day? How much an hour?

FOR SPELLING AND DEFINING

harness	material	blinders	rosettes	weighing
leather	hames	trimmings	edgefiller	scrap
double	collars	buckles	tanned	realized

BUSINESS EXERCISES

1. Make out the bill for the leather bought of Barnard Brothers.
2. Write the order for the goods bought of W. D. O'Brien.
3. Supplying a local name, write a letter to the customer, telling him the harness is ready for delivery.
4. Make out the check to pay for the harness.

Lesson 3. Horseshoeing

How many nails should there be in a horseshoe? Why must horses wear shoes? What is the use of sharp calks? Name a city noted for the manufacture of horseshoes. What are some of the common things seen in a blacksmith shop?

Mr. R. Jenks pays $25 a month for the use of a blacksmith shop. He hires a horseshoer to help do the work, paying him 40¢ an hour. The average time the shop is in operation is twenty-six days per month, and the day consists of eight hours. The blacksmith confines his efforts solely to horseshoeing. The price for shoeing is $1.50 a set for new shoes, and 80¢ a set for sharpening calks. From October 1 to April 1 following, the average daily work done was seven sets of new shoes and five sets sharpened. The shoes cost the blacksmith 6¢ a pound, and the nails cost 10¢ a pound. The weight of the shoes averaged 2 lb. each, and it required one half pound of nails to shoe a horse. The cost for soft coal was $4 a month.

From the above data, find the blacksmith's net income for the time specified.

FOR SPELLING AND DEFINING

blacksmith	consists	solely	calks	hardware
horseshoe	confines	shoeing	requires	material
sharpening	efforts	income	specified	operation

BUSINESS EXERCISES

1. Using the name of a local hardware dealer, make out an order for the material to shoe twenty horses. (Disregard the coal.)

2. Make out a check to pay the horseshoer, Mr. Thomas Karr, for one week.

3. Assume that a local coal dealer has delivered 1500 pounds of coal at $8 a ton. Make out the bill to the blacksmith.

Lesson 4. Wagon Making

What determines the size of a wagon? Name several differe kinds of wagons. Name different parts of a wagon. State son advantages of a hand-made wagon over one made by machiner

Mr. Lewis Cole ordered a market wagon (size of axl inch and one half; capacity, 2000 lb.) of a local wagon make The price of the wagon was to be $125. The lumber wa bought of a local lumber dealer. It took 100 ft. of whi wood at 9¢ a foot for the body. For the gear, it took 30 f of hickory and white oak together, at 10¢ a foot. The whee were bought of Wood & Co., Easton, Md., at $16 for th set. The iron was bought of Hannibal Green's Son & Co Rockville, Del. The following was required: 2 Concord axles at $3 each; one spring weighing 40 lb. at 8¢ a pound; 2 springs each weighing 30 lb. at 8¢ a pound; 4 tires, inch and one half by three eighths, each weighing 18 lb., at $3\frac{1}{2}$¢ a pound; 125 lb. of Burden's bar iron at $4\frac{1}{2}$¢ a pound; one full circle at $2.25; shaft couplings, 75¢; 150 bolts at 2¢ each. Cartage amounted to $3. The painting cost $15. It took the wagon maker 18 days to build the wagon. Find how much he received for his labor. How much was that a day?

FOR SPELLING AND DEFINING

determines	market	hickory	weighing	wagon maker
advantages	capacity	circle	couplings	received
machinery	gear	several	painting	mentioned

BUSINESS EXERCISES

1. Make out a bill for the iron.

2. Mr. Cole, who bought the wagon, gave his note for the amount. Write the note, making it payable in six months, with use.

3. Make out orders for the material to build two wagons like the one mentioned above.

Lesson 5. Automobile Overhauling

What is the use of a magneto? What is the use of a carburetor? Why should an automobile need overhauling? Is it possible to make an old car practically as good as new? About how many miles do you think a new tire should run?

Mr. J. Walsh, having run his automobile two seasons, decided to have it thoroughly overhauled, repaired, and painted. The Wilbur Auto Company made a job price of $225; or, they offered to do the work, charging the usual price for each item. Supplies were to be furnished at list price less a small discount for cash. The owner chose the latter proposition.

The following was needed to put the car in first class order: a new K.W. magneto listed at $15 less 10 per cent; a new Holley carburetor listed at $9 less 10 per cent; 4 tires, 32 in. by 3½ in., listed at $16.75 each, with 5 per cent off for cash; 4 inner tubes at $4 each, net; other extras, such as bearings, clutch parts, gears, piston rings, etc., $46; painting, $35; 60 hours of labor at 60¢ an hour. Did the owner gain or lose, and how much, by having the work done this way?

FOR SPELLING AND DEFINING

carburetor	practically	supplies	latter	magneto
overhauling	decides	discount	listed	piston
proposition	repaired	possible	clutch	itemized

BUSINESS EXERCISES

1. Make out a complete itemized bill for the overhauling.

2. Write an order to the K. W. Ignition Company, Cleveland, Ohio, for the magneto.

3. Assume that the magneto was very satisfactory. Write a recommendation for the K. W. Company to use in their catalogue.

4. Write to the company repairing the car, asking when the car will be ready for use.

Lesson 6. Steam Vulcanizing

What use is made of old automobile tires? What material is found in tires? State conditions detrimental to automobile tires.

The price for vulcanizing tires at the Troy Steam Vulcanizing Works, Troy, N.Y., is as follows: six-inch sections, $1 an inch for each inch in diameter of the tire and 50¢ for each additional inch in length above six inches. The price for punctures is 50¢; blowouts, 75¢.

The cost for rent is $35 a month, and for gas 50¢ a week. Two tons of coal are burned each month at $7 a ton. One expert man is paid $22 a week, and the manager's services are worth $35 a week. Crude rubber and fabric are bought of the Fisk Company, Chicopee, Mass., the price of rubber being $1.45 a pound and of fabric $1.22 a pound. The average cost per month for gasoline, ether, and sulphur is $5.

The average work done each day for a month of twenty-four working days was as follows: two six-inch sections on a three-inch tire, one eight-inch section on a four-inch tire, four punctures, and four blowouts. During the month, 8 lb. of crude rubber and 5 lb. of fabric were used. What was the Company's profit for the month?

FOR SPELLING AND DEFINING

vulcanizing	punctures	crude	Chicopee	sulphur
sections	expert	fabric	gasoline	workman
additional	manager	ether	services	diameter

BUSINESS EXERCISES

1. Write a letter to the Fisk Company, ordering the fabric and rubber needed during the month of March.

2. Write an advertisement for a man to act as expert workman in the vulcanizing works.

3. Mr. James Myers, Rome, N.Y., had an eight-inch section repaired on a four-inch tire. Make out the bill.

Lesson 7. Livery Business

What is a livery? On what special occasions is there a demand for livery horses and drivers? State some important duties of a driver.

Mr. George Smith, starting the livery business, bought the following outfit: two coaches at $1000 each; four horses at $250 each; one two-seated carriage at $200; two road wagons at $100 each; two sets of coach harness at $80 each; two sets of single harness at $30 each; blankets, whips, robes, etc., $37; uniforms for two drivers at $20 each; two hats at $4 each, and two rubber coats at $6 each. The two drivers each receive $12 a week, and it costs $3.50 a week to feed each horse. Stable rent amounts to $3 a week. Insurance is carried to the amount of $3000 at the rate of $2\frac{1}{2}\%$ for three years.

If the average daily work done by one team is $5.50 and the other two horses earn on the average $3 a day each, what is the profit for 365 days? How long will it take the business to pay for the outfit?

FOR SPELLING AND DEFINING

livery	drivers	coaches	robes	important
special	rent	carriage	stable	insurance
occasions	duties	harness	daily	carried
demand	starting	blankets	outfit	uniforms

BUSINESS EXERCISES

1. Mr. C. Abrams hired two coaches from one o'clock until half past four. Considering the price for a coach with driver $1.50 for the first hour and $1 for each additional hour or fraction thereof, make out the bill.

2. Assume that a coachman is wanted. Advertise for the same.

3. Write a check to pay a local blacksmith for shoeing the horses for four weeks.

Lesson 8. Garage Business

Why must the garage be warm? State two reasons for having a night watchman. Would you put water on burning gasoline? Why?

The proprietor of a local garage pays $100 a month as rent and employs a floor manager each day in the month at $3 a day. A night watchman is employed at $1.50 a night. Gasoline and oil are sold every day in the month. The other business is based on the actual working days, for which the following expenses are incurred: two machinists at $4.50 a day each; one bookkeeper at $2 a day; a superintendent at $5 a working day. Two tons of coal are consumed each month. This costs $7 a ton. The cost for insurance is $10 a month. Lighting costs $10 a month. The profits derived are as follows: on gasoline, 200 gal. daily at 2¢ a gallon; from oil, 10 gal. daily, costing 30¢ a gallon and sold at 15¢ a quart; receipts for machine and other work done, $12 a day; profits on supplies, $15 a day; on storage, five cars at $5 a month, ten cars at $10 a month, and a daily average of $2 a night for transient cars.

From the above data, determine the net profits for the month of January, counting five Sundays.

FOR SPELLING AND DEFINING

local	incurred	watchman	supplies	determine
actual	employs	machinist	storage	garage
based	manager	insurance	transient	derived

BUSINESS EXERCISES

1. During a month, a man's bill for storage was $5, and he had 20 gal. of gasoline and 4 qt. of oil. Supply the names and make out the bill.
2. Write a receipt for the payment of the above bill.
3. Write to engage storage for a small car at a local garage.
4. Apply by letter for a position as night watchman in a garage.

Lesson 9. Automobile Dealing

Give the names of some well-known automobiles. What can you say of the prices of automobiles? Is the price going up or down and why? Why should the price of gasoline advance?

Mr. J. C. DeBaun, Denver, Col., signed an agreement February 1 with the Metz Company, Waltham, Mass., to sell automobiles until September 1 following. The agreement called for the sale of two cars a month during the term of agreement. The automobiles were listed at $475 each with a trade discount to dealers of $100 on a car.

Let us assume that the cost for delivery was $25 a car, and for a dealer's license, $15. Mr. DeBaun paid $30 for a stall at a local Automobile Show. Advertising cost $20. A car was kept for demonstrating purposes, and at the close of the season it was sold for $275. The cost for tires, gasoline, and oil was $70. All cars except the demonstrator were sold at the list price.

From the above data, find the profits from the business. How much a month?

FOR SPELLING AND DEFINING

agreement	term	advertising	license	discount
Waltham	listed	demonstrating	deposit	season
automobile	delivery	purposes	except	advance

BUSINESS EXERCISES

1. Write a brief form for a poster advertising the Metz Automobile.

2. Assume that Mr. DeBaun took a second-hand automobile in trade. Advertise it.

3. Write an order to the Metz Company for two cars, enclosing the usual deposit of $150 on a car.

Lesson 10. Bicycle Dealing

State reasons why bicycles are not used so extensively as they were some years ago. What is a motorcycle? What is a cyclecar? Distinguish between freight and express shipments.

A bicycle dealer, Mr. J. Hager, paid $50 a month for a show room. His stock of goods consisted of bicycles listed at $25, $35, $45, and $60, respectively. He allowed customers a cash discount of 8 per cent on each grade, after which he made a gross profit of 25 per cent on the price received for each bicycle. The bicycles were shipped to the dealer by freight, in crates of ten in a case, at a cost to the dealer of $5 a crate. He began business April 1 and closed out his goods on the first day of October. The average number of sales made was 24 bicycles a month, one half of which were of the cheapest grade. The remainder sold consisted of an equal number of each of the other three grades. The expense for gas was $1 a month. The dealer employed no help. Find how much he actually cleared during the season.

FOR SPELLING AND DEFINING

reasons	season	cyclecar	consisted	customers
bicycles	discount	distinguish	extensively	cheapest
freight	dealer	shipments	motorcycle	employed

BUSINESS EXERCISES

1. The dealer wishes to advertise his business in a local paper Write a suitable form for the same.

2. Assume that you have decided to buy a bicycle, but ha not decided what grade you wish to buy. Write to the dealer f advice in the matter.

3. Assume that your bicycle was stolen. Write a newspa notice offering a reward for the return of the property.

4. Make out a bill for the above advertisement

Lesson 11. Express Business

Mention some sources of income to an expressman. Name some of an expressman's items of expense. What advantage has the auto express over the one drawn by horses? State some disadvantages of the auto express.

In establishing an express business, a man incurred the following expenses for: 2 horses, $250; 2 sets of harness, $60; 2 wagons, $150; incidentals, $40. He started business April 1 and sold out January 1, following. While in business, he hired two drivers, paying them each $12 a week. It cost $7 a week to feed the horses. Shoeing and wagon repairs amounted to $3 a month. The rent for a barn was $5 a month. The wagons were run twenty-six days each month. One man took in $5.50 a day each day, while the other man took in only seven elevenths as much. When the owner sold out, he received $475 for the entire business and equipment. Find how much he made in the transaction.

FOR SPELLING AND DEFINING

establishing	mention	expressman	shoeing	advantage
equipment	sources	promissory	items	entire
transaction	incurred	settlement	repairs	deposited

BUSINESS EXERCISES

1. Assume that you are the expressman. Make out a promissory ninety-day note to J. W. Tuttle in settlement for the equipment.

2. Assume that John Smith bought the outfit of you, paying $200 in cash and giving his note for the balance. Make out the note.

3. Write a letter to your bank, enclosing the $200 to be deposited on your account.

4. Write a letter from the bank to acknowledge receipt of the money sent by you.

Lesson 12. Barber Business

Describe the method of shaving. About how long does it take for one shave? When would you expect to find the barber shops closed? Name several articles used in a barber shop.

Mr. C. B. Story is a barber who can command $17 a week; but he wished to go into business for himself. Accordingly, he rented a barber shop, furnished, at $15 a week. He bought the following supplies for the first month: bay rum, $4; witch hazel, $3; shaving soap, $2; razors, $6. The laundry bill for the month was $10. Gas cost $6. He paid a barber $14 a week.

The average daily work done by the men was as follows: by the proprietor, 14 shaves at 15¢ each, 6 haircuts at 25¢ each, and 4 razors honed at 25¢ each; by the employee, 20 shaves at 15¢ each, and 6 haircuts at 25¢ each.

From the above data, find the proprietor's net income for the month, counting four full weeks. How much is that a week? How much a day? How much did the proprietor gain a week by running the shop? How much a day?

FOR SPELLING AND DEFINING

describe	method	shaving	articles	command
business	furnished	supplies	razors	laundry
proprietor	honed	income	expect	employee

BUSINESS EXERCISES

1. Supplying common names, make out a bill for the supplies.
2. Make out a check to pay the barber, Mr. D. Patnaude, for a week.
3. Write a letter to L. Holzhauer, Peoria, Ill., ordering supplies to the amount of eight dollars.
4. Advertise for a man to learn the barber's trade.

Lesson 13. Shoe Shining

If the proprietor of a business receives a salary as manager, is there any advantage in running a business simply to pay expenses? Is it necessary to have educational training in order to work at shining shoes? What are some of the duties of a proprietor of a business?

The rent paid by a local shoe-shining establishment is $2000 a year. The manager, who is an expert workman, receives $28 a week. Two helpers are employed, and each receives $14 a week. The expense for gas amounts to $14 a month. The average amount expended for supplies is $1 a week.

The price for shining shoes is five cents; and for cleaning hats, ten cents. The average amount of work done daily for the year is 320 shines, and 10 hats cleaned. Find how much more than expenses the business paid for the year. If the price for a shine had been ten cents and the average had been 150 shines a day, what would have been the result?

FOR SPELLING AND DEFINING

rent	manager	proprietor	result	expenses
helpers	average	advantage	workman	educational
expert	business	training	supplies	establishment

BUSINESS EXERCISES

1. Make out a check to pay the rent for one month. Use local names.

2. Write an advertisement for a helper wanted in some shoe-shining parlor.

3. Answer the above advertisement. Supply names.

4. Supplying the necessary names, write a recommendation for some boy looking for work.

Lesson 14. The Chinese Laundry

How does a Chinese laundry differ from a steam laundry? Why can the Chinaman do his work more cheaply than the steam laundryman? Account for the fact that the Chinaman takes up the laundry business, generally, rather than other work. What is a "wet wash"?

According to the statements of a certain Chinaman, on some days he launders 10 shirts, other days 15, and on some days as many as 20. Likewise, the work done on collars varies. On some days he will launder 100, other days 150, and on some days as many as 200. The prices for laundering are 2¢ each for collars and 10¢ each for shirts. Moreover, the income from other work amounts, on the average, to 15 per cent of that for collars and shirts. His rent costs $10 a month. Some of his washings are sent out to a wet wash. It is estimated that the cost for this and incidentals such as gas, soap, starch, etc., is 10 per cent of the money taken in for work. The Chinaman lives in his laundry apartments, and his living costs him only $2.25 a week. From the above data. estimate the Chinaman's net profits for a year of fifty-two full weeks.

FOR SPELLING AND DEFINING

Chinese	laundry	account	statements	launders
varies	income	washings	estimated	incidentals
profits	data	starch	description	apartments

BUSINESS EXERCISES

1. Counting twenty-six days to the month, make out a monthly statement to show the proceeds of the above business.

2. Write a description of a Chinese laundry.

3. Assume that a man had four collars and two shirts done each week during the month of February. Omitting the bill heading, put the items for the month into the form of a bill.

Lesson 15. Grocery Trade

Name several very common articles sold at a grocery store. Name different kinds of stores. Name two you consider most important to mankind and give reasons for your answer. Name some necessary requirements of a successful clerk.

A grocer marks his goods so as to make the following profits on the amount received for goods: tea and coffee, 40 per cent; canned goods and other common articles, 20 per cent; fruits and vegetables, 30 per cent; butter and eggs, 15 per cent; sugar costing \$4.30 a hundredweight is sold at $4\frac{1}{2}$¢ a pound.

The average amount of goods sold each day is as follows: 80 lb. of coffee at 30¢ a pound and 40 lb. of tea at 35¢ a pound. The amount taken in at the counter for canned goods and other common articles averages \$85 a day. The receipts for fruits and vegetables are \$60 a day. The price for butter is 30¢ a pound and for eggs 25¢ a dozen. The average amount of butter sold daily is 120 lb., and the amount of eggs is 60 doz. The average amount of sugar sold daily is 400 lb. Find the profits from the sale of goods for a week of six days.

FOR SPELLING AND DEFINING

settlement	consider	mankind	reason	coffee
vegetables	counter	receipts	naturally	customer
demanding	grocery	applying	position	promised

BUSINESS EXERCISES

1. Make out a bill for groceries, as a grocer would naturally make it out. Supply names.

2. Assume that a customer has not paid a grocery bill, as he promised. Write a letter to the customer demanding a settlement.

3. Write a letter applying for a position as clerk in a local grocery store.

Lesson 16. Butchering

Name some of the different kinds of meat seen in a meat market. Name a city noted for supplying much dressed beef. Where is it? Are there any substitutes for meat? Give some idea of the prices of some kinds of meat.

Mr. B. Chase, a butcher, started business with $1000 in a local bank. He bought three horses at $175 each; a wagon for $100; a harness for $60; and meat tools for $48. He owns a small farm and has no rent to pay.

The butcher began business April 1, buying ten calves live weight, the average weight being 125 lb. each, at 10¢ a pound. When dressed, the calves averaged 90 lb. each; and he sold them at 16¢ a pound by the carcass. Next, he bought 40 lambs, averaging 90 lb. each, at $6 apiece. The lambs dressed away just one half. He sold them at 16¢ a pound, dressed. He then bought six cows at $35 a head. The cows dressed, on the average, 500 lb. each; and they were peddled out, netting the butcher 14¢ a pound. He closed accounts September 1. With living expenses at $20 a month, how much should he have had in the bank at that time?

FOR SPELLING AND DEFINING

dressed	substitutes	butcher	harness	calves
weight	carcass	lambs	peddled	netting
accounts	living	business	engage	local

BUSINESS EXERCISES

1. Write a letter such as a butcher would write to a farmer to engage forty lambs for market.

2. Write the probable reply.

3. Assume that the butcher is looking for stock for meat. Write an advertisement for the same.

Lesson 17. Ice Business

Why is ice necessary? Can ice be manufactured? At what temperature does ice begin to form, naturally? Is ice heavier or lighter than water? What is a good proof?

A man owns an ice house which holds 900 tons. During the month of February he had the ice house filled. It took nine working days to do the work. Forty men each received \$2.50 a day; six men each received \$3 a day; four men worked nights, each receiving \$3 a night; and a superintendent received \$5 a day. Four teams with drivers were employed, each receiving \$6 a day. A man with an engine was paid \$10 a day. The engine consumed one ton of coal each day, and the coal cost \$6 a ton. Incidentals amounted to \$100. One third of the ice wasted before it was delivered to the consumer. The owner hired the ice delivered for \$1.50 a ton, and the price received for the ice was 40¢ a hundred pounds. Four tons of ice were delivered each day, and a helper was furnished by the owner to help load ice at a cost of \$2 a day for the time required to peddle the ice. Insurance cost \$100. Find the owner's net profits from the business for the season.

FOR SPELLING AND DEFINING

superintendent	heavier	delivered	peddle	naturally
manufactured	receipt	consumer	insurance	consumed
temperature	engine	furnished	receipt	profits

BUSINESS EXERCISES

1. Mr. R. Hyde had 50 lb. of ice every day during the month of July. Make out his bill in your favor.

2. Make out a receipt for the above bill.

3. Using local names, make out a bill for the coal used in filling the ice house.

Lesson 18. Spring Water Industry

Why is spring water preferable for drinking purposes? State how water from a reservoir may become impure. What danger arises from the use of impure water? How can reservoir water be improved for drinking purposes? What is meant by an analysis of water?

A farmer living near a city decided to take advantage of the fact that he has an excellent spring on his farm. Accordingly, he solicited customers to buy bottled water of him. He secured eight customers who have a demijohn filled each week day at a cost of 25¢ for each filling. Twelve customers take one case of six bottles each week day at a cost of 25¢ a case. Five customers each take two cases a week day at 20¢ a case. The average retail trade amounts to ten bottles a day at 5¢ each. A man is employed to wash bottles and to bottle water at $1.50 a day. The driver receives $2 a day. Feed for the horses costs $1 a day each day in the week. Incidentals amount to 50¢ a working day. Find the net proceeds from the business during the months of July and August, counting nine Sundays in the two months.

FOR SPELLING AND DEFINING

preferable	purposes	reservoir	arises	impure
improved	analysis	advantage	excellent	solicited
customers	demijohn	employed	prepared	retail

BUSINESS EXERCISES

1. Assume that you are prepared to supply springwater. Write an advertisement for the same.

2. Make out a weekly statement of receipts and expenses for the above business.

3. Using local names, draw up a check to pay the driver for one week.

Lesson 19. Hotel Business

Distinguish between the terms *hotel* and *restaurant*. Name several well known hotels. What is a temperance hotel? What is a café? Why do hotel keepers cater more to transient trade than to regular boarders? Give some idea of the price of board at hotels in your town.

The proprietor of a certain hotel has established the following prices: regular boarders, \$10 a week; dinners, 50¢; breakfasts, 25¢; suppers, 35¢; lodgings, \$1. He pays two chambermaids each \$6 a week. He pays a cook \$10 a week, and two waitresses each \$5 a week. The rent costs \$125 a month. Eight people board regularly at the hotel. In addition to this, the average daily transient business is as follows: five lodgers, seven breakfasts, twelve dinners, and ten suppers. The average cost for fuel and provision is \$80 a week. From the above data, make out a statement to show the proceeds of the business for the month of February.

FOR SPELLING AND DEFINING

restaurant	temperance	café	lodgings	transient
proprietor	established	cater	waitresses	provision
proceeds	statement	data	application	favorable

BUSINESS EXERCISES

1. A man and his wife stayed at the above hotel three days. Make out a statement of the expense.

2. A young woman wishes to secure a position as waitress in a local hotel. Supply ordinary names and write an application for the position.

3. Write a favorable reply to the above application.

4. Write a letter accepting the position, as offered in the terms given by the proprietor of the hotel referred to above.

Lesson 20. The Restaurant

What is the difference between a hotel and a restaurant? Give the names of some restaurants. What is a "quick lunch"? What laundering is needed in a restaurant?

The prices for meals at a local restaurant are as follows: breakfast, 15¢; dinner, 25¢; supper, 20¢. The help employed is as follows: two waitresses at $1 a day each; one cook at $2 a day; a cashier and manager at $75 a month. The cost for rent is $40 a month; for gas, $15 a month; for coal, $7 a month; for laundry, 50¢ a day. During the months of January and February, the following provisions were bought for each month: 4 bbl. of potatoes at $3 a barrel; 5 lb. of coffee at 30¢ a pound; 1 bbl. of flour at $6.50 a barrel; 150 lb. of sugar at $4.30 a hundredweight; 20 lb. of lard at 16¢ a pound; 2 lb. of tea at 40¢ a pound. The following were bought each day: 2 packages of cereal at 10¢ each; 4 qts. of milk at 8¢ a quart; 15 lb. of meat averaging 20¢ a pound; incidentals, $1 a day.

The average number of meals served daily was as follows: 25 breakfasts, 35 dinners, and 25 suppers. Find what the business paid during the two months specified.

FOR SPELLING AND DEFINING

restaurant	breakfast	waitress	cashier	manager
laundering	coffee	cereal	business	specified
groceries	articles	meter	provisions	needed

BUSINESS EXERCISES

(Use local names in the forms below.)

1. Make out a bill for the coal.
2. Write out an order for groceries to the amount of $10.
3. Make a list of twenty common articles bought at a grocery
4. Advertise for a waitress.

Lesson 21. Garbage Collecting

What is a contract? Why is it necessary? Mention different ways of disposing of garbage. Who pays the garbage man? What is junk?

Mr. T. Hodge took the contract for a year to carry away the garbage from a certain number of streets. According to the terms of the contract, the garbage was to be collected once a week. The cans were to be taken to the curbstone by the residents. The compensation allowed by the city was $100 a month. In addition to that, the garbage man received $1 a week extra from each of four churches. Twenty families preferred to have their garbage taken from their back yard at a cost of 10¢ a week per family. Junk found in the garbage amounted to $1.50 a week for the year. Two men were hired to do the work, each receiving $1.50 a day. The horses cost $250, and the harness cost $50. The wagons were furnished by the city. It cost $6 a week to stable and feed the horses. Shoeing and incidentals came to $5 a month. At the end of the year, horses and harness were sold for $280. Find the result of the year's business, counting 305 working days.

FOR SPELLING AND DEFINING

junk	disposing	collected	allowed	shoeing
terms	garbage	curbstone	received	preferred
stable	contract	residents	families	compensation

BUSINESS EXERCISES

1. A local junk dealer bought 350 lb. of iron and 40 lb. of rubber. Iron was worth 40¢ a hundredweight; and rubber, 7¢ a pound. Make out the bill.

2. Write a letter to a local feed dealer, ordering 400 lb. of feed.

3. Granting that the price of the feed was $1.60 a hundred pounds, make out a check to pay the bill. (Use local names.)

4. Advertise for a man to work on the garbage wagon.

Lesson 22. Construction Work

What is a contractor? Name one. How is the price of contract work usually determined? State an advantage of having work done by contract. Name one disadvantage. Name some piece of work done by contract.

Mr. Oscar Teal contracted to build a barn for $1800. He had $1500 in the local bank. The work was started June 1, 1914, and was to be completed on or before Sept. 1, 1914. The work was completed Oct. 1, 1914, the contractor forfeiting $5 a day for each day after the time specified for the completion of the work.

The contractor paid the following expenses: to a local lumber dealer, $25 a thousand for 20,000 ft. of lumber; to a local roofer, $5 a square for 18 squares of roofing; to a lime and cement dealer, $60; to a teamster, $4 a day for 28 days; to a carpenter, $4 a day for 90 days; to two helpers, $2 a day each, for 80 days; for painting, 15 gal. of paint at $1.60 a gallon and $20 for painting. Incidentals amounted to $100. From the above data, find the contractor's financial standing Oct. 1, 1914, allowing $400 for living expenses.

FOR SPELLING AND DEFINING

contractor	determined	advantage	local	completed
forfeiting	specified	completion	roofer	cement
teamster	carpenter	data	remit	financial

BUSINESS EXERCISES

1. Make out a bill for the lumber, using a local dealer's name.
2. Draw up a check to pay for the lumber.
3. Supply a common name and write a telegram to the carpenter, asking him to report for work at once.
4. Assuming that there is a balance of $500 due the contractor, write to the owner, Mr. I. Kidd, asking him to remit at once.

Lesson 23. Road Building

What is a macadam road? Discuss the advantages of state roads. How is the automobile a help to the road system? How is it detrimental to roads? Name several different kinds of material used in building roads.

A contractor agreed to build three miles of macadam road at $10,000 a mile. The road was to be 16 ft. wide, built of crushed stone placed 8 in. thick. There were 1800 cu. yd. of dirt to be moved, and this cost the contractor 40¢ a yard. The following material was needed: sixty tons of coal costing $3.30 a ton; 7500 ft. of lumber at $30 a thousand; 1800 sacks of cement at $1.65 a barrel (a barrel of cement contains four sacks). Posts, guard rail, and labor for erecting same cost $225; paint, metal, and oil cost $120; incidentals amounted to $3.00. It cost the contractor $4 a cubic yard to furnish the crushed stone and lay the material according to specifications. Find the net profits to the contractor for building the three miles of road.

FOR SPELLING AND DEFINING

macadam	crushed	contains	specifications	cement
automobile	cubic	erecting	incidentals	system
detrimental	metal	material	advantages	contractor

BUSINESS EXERCISES

1. Assume that you are the contractor. Advertise for teams and men to work on the road.

2. Assume that you want work on the road. Supply the name and address of a superintendent and apply for a job.

3. Using local names, make out a bill for the lumber and cement used in building the above road.

4. Make out a receipt for the above bill.

Lesson 24. Stone Quarrying

State some uses of crushed stone. What has location to do with the value of a stone quarry? How is the solid rock first broken in a quarry? State some characteristics of dynamite.

In a certain stone quarry, fifty men are employed. The daily wages paid are as follows: one engineer, $2.25; one fireman, $2; two blacksmiths at $2.25 each; seven drillmen at $2 each; one quarry foreman, $2.50; one blaster, $2. The remainder of the men each receive $1.75 a day. The daily cost for coal and oil is $31. The bookkeeper receives $50 a month while the plant is in operation. The overhead expenses amount to an average of $77 a day. The plant is valued at $50,000; it is in operation from the first day of April until December 1 each year. The average number of actual working days per month is twenty-five. The capacity of the plant is 500 tons a day, and the stone is sold at 50¢ a ton at the quarry. Assuming that the plant is run to its full capacity during the time specified above, find the net proceeds to the company for a season, allowing 6% interest on the money invested, and a salary of $2000 a year for a superintendent.

FOR SPELLING AND DEFINING

quarry	foreman	specified	superintendent	dynamite
solid	blaster	proceeds	characteristics	operation
plant	capacity	interest	countermand	satisfactory

BUSINESS EXERCISES

1. Assume that you are a contractor wishing to buy 100 tons of crushed stone. Write to the Rensselaer Stone Co., Lyme, N.H., for the necessary information.
2. Write a reply to the above letter.
3. Assume that the price is satisfactory. Order the goods.
4. A day later you change your mind. Countermand the order.

Lesson 25. Coal Mining

Name several different kinds of coal. What are the uses of coal? Name some substitutes for coal. Give the table for cubic measure. Give some idea of how coal was formed.

A man in Pennsylvania discovered that the ground on his farm contained coal. Accordingly, he let the contract to sink a shaft into the ground, 700 ft. deep. The shaft was to be 18 ft. long and 15 ft. wide, and the work was to be done for $3.90 a cubic yard. A tunnel 570 ft. long was to be dug at $4.50 a linear yard. The tunnel was to be large enough to allow a car to pass through. When the mine was in operation, the capacity was 1370 tons a day, one fifth of which was waste material. It cost the owner $2.25 a ton for mining each ton of marketable coal, and the cost for handling the same was 80¢ a ton. The coal was sold for $3.45 a ton. Find how many working days it would require at this rate to pay the cost of the shaft and tunnel.

FOR SPELLING AND DEFINING

Pennsylvania	waste	linear	handling	capacity
marketable	shaft	mining	discovered	material
substitutes	tunnel	require	operation	contract

BUSINESS EXERCISES.

1. Supply the necessary names and write to a contractor for a bid on the construction of the shaft.

2. Write an unfavorable reply to the above letter.

3. Assume that men are wanted to work in the mines. Write an advertisement for the same.

4. Write a letter such as might be sent from some labor bureau to the above company, offering to furnish twenty men to work in the mines. Supply names.

Lesson 26. Coal Dealing

Name several different kinds of coal. Tell something of the uses of the different kinds of coal. Name a section of the country noted for coal. Where is Pittsburgh? What is the busiest time of year for coal dealers? Name different methods of delivering coal to the consumer.

Let us assume that coal costs a local dealer, Mr. Watkins, as follows: \$3.25 a ton at the mines; freight, \$1.10 a ton; unloading, 30¢ a ton. The dealer has a team of horses, and he employs a man at \$2.25 a day. The horses each eat 12 qt. of oats a day, and oats are worth 48¢ a bushel. It costs \$6 a month to shoe the team, and expenses for wagon repairs amount to \$2 a month. The man with team delivers, on the average, eight tons of coal a day. From the above data, estimate the profit to the dealer for the month of October, granting that coal retails at \$6.75 a ton delivered to the consumer.

FOR SPELLING AND DEFINING

different	section	Pittsburgh	assume	local
mines	freight	employs	repairs	delivers
estimate	profit	granting	retails	consumer

BUSINESS EXERCISES

1. Using local names, make out a bill for six tons of coal.
2. Make out a receipt for payment of the bill.
3. Write a check to pay the employee for one week. Use local names.
4. Write to a local feed dealer, ordering oats enough to last the team a month.
5. A man wishes to have two tons of coal delivered at his residence. Supply names and address and order the coal.

Lesson 27. Oil Trade

Where is oil obtained in large quantities? Name some different kinds of oil. What part of an automobile requires the bulk of the oil? What becomes of the oil?

On April 1, Mr. Arthur Childs, Frankfort, Ky., signed an agreement with the Zone Oil Company, Cleveland, Ohio, to act as an oil drummer until October 1. He decided to confine his efforts to the sale of automobile oil. The company quoted him a cost price of 20¢ a gallon at the refinery, agreeing to allow him half of all receipts above cost. Mr. Childs sold the oil at 30¢ a gallon. Barrels contain 50 gal.; half-barrels, 30 gal., more or less. Mr. Childs worked twenty days each month for the time specified. He sold, on the average, two barrels and four half-barrels each day. His daily expenses while on the road averaged as follows: carfare, $3; hotel bills, $2.50; incidentals, $.50. His board for the time he was not working was $8 each month.

Find how much he should have saved during the term of agreement. Would $100 a month and expenses have been better? How much better?

FOR SPELLING AND DEFINING

Frankfort	agreement	decide	drummer	confine
efforts	company	quote	refinery	contain
average	commission	during	quantities	bulk

BUSINESS EXERCISES

1. The drummer sold 2 bbl. of oil to Charles White, Bloomington, Ill. Write the order as the agent would send it to the Company.
2. Make out the bill the Company would send to Mr. White.
3. Make out the check Mr. White would send to the Company.
4. Make out the check as the Zone Oil Company would send it to the drummer for his commission.

Lesson 28. Shirt Industry

Name and locate a city noted for the manufacture of shirts. Name several different kinds of shirts. What is the duty of a shirt inspector? Describe the color and material of the common outside shirt.

As a rule, shirts retailed at $1.50 each are sold by the manufacturer at $13.50 a dozen. The average cost for the cloth used is 15¢ a yard, and it requires 40 yd. to make a dozen shirts. In manufacturing, the following prices per dozen are paid for labor: cutting, 20¢; inspecting, 8¢; sewing buttons, 4¢; attaching cuffs, 15¢; felling, 10¢; neckbanding, 14¢; buttonholing fronts, 5¢; joining, 6¢; plait work, 10¢; sleeve work, 7¢. Other operations amount to 47¢. The cost for trimmings, such as plaits, linings, neckbands, cuffs, buttons, etc., amounts to $1.38 a dozen. The cost for laundering is $1.85 a dozen. The overhead expenses amount to 60 per cent of the direct cost for labor alone. Counting the cost for boxes 1.4¢ a dozen shirts, and the cost for selling 10 per cent of the list price, find the net profits to a company in making up ten cases of cloth, each case containing 2200 yd. Find the gross profits to the retailers on this lot of shirts.

FOR SPELLING AND DEFINING

manufacture	inspector	attaching	sewing	plait
buttonholing	laundering	joining	linings	direct
operations	material	overhead	retailers	gross

BUSINESS EXERCISES

1. Assume that you are looking for work in a shirt shop. Write to Hall, Hartwell, and Company, Troy, N.Y., to get a position.

2. Write a favorable reply to the above letter.

3. Write a letter to a friend, telling him of your success in securing a position in a shirt shop.

Lesson 29. Collar Industry

Name and locate a city that is noted for the manufacture of more collars than any other city in the world. What material is found in a medium grade collar? What is the prevailing retail price? Describe different styles of collars.

The average cost per yard for material found in collars selling at the rate of two for 25¢ is ten cents a yard, and it requires three yards of cloth for a dozen collars. The cost per dozen for manufacturing is as follows: cutting, 3¢; turning top, $1\frac{1}{4}$¢; stitching, 3¢; trimming, $\frac{1}{2}$¢; turning band, $1\frac{1}{2}$¢; inserting, 6¢; buttonholing, 3¢; overhead expenses, $11\frac{3}{4}$¢. Laundering costs 13¢ a dozen. A box holding one dozen costs one cent. The selling expenses amount to 18¢ a dozen, and the manufacturer sells his goods for $1.10 a dozen less 5%. If a company manufactures 1500 doz. collars a day, what are the net profits to the company for a month of twenty-six working days?

FOR SPELLING AND DEFINING

locate	retail	cutting	manufacture	medium
collars	styles	stitching	prevailing	requires
material	average	turning	buttonholing	suitable
favorable	reply	inserting	laundering	holding

BUSINESS EXERCISES

1. Assume that you are looking for work in a collar shop. Write to Cluett, Peabody, & Company, Troy, N.Y., to secure a position.

2. Write a favorable reply to the above letter.

3. Assume that a cutter has cut 100 doz. collars a day for a week. Supplying suitable names, draw up a check for the cutter for his week's wages.

4. Assume that you are a cutter in the above factory. Write a note stating that, owing to illness, you will not be able to continue work.

Lesson 30. Clothing Store

How many months in a year? How many days? How many weeks? How many Sundays? How many week days? Name the legal holidays. How many business days in a year?

The rent paid by a certain clothing establishment is $170 a month. The cost per month for gas is $10; and for electricity, $15. The cost for help is as follows: $15 a week for a tailor, $20 a week for an expert clerk, $6 a week for a helper, and $25 a week for a manager.

The suits sold are of three grades selling at $10, $12.50, and $15, respectively. The average number sold a day for a year of 305 business days is three suits of each grade. On the first, let us assume there is a profit of $3; on the second, $3.75; and on the third, $4.50.

Counting fifty-two weeks to the year, what should be the net profits to the company for the time specified?

FOR SPELLING AND DEFINING

clothing	establishment	limit	holiday	expert
average	electricity	net	umbrella	assume
specified	respectively	legal	insertion	grades
manager	advertisement	rate	counting	tailor

BUSINESS EXERCISES

1. Write an advertisement for a boy wanted in some local clothing store. Limit the cost to 30¢ for each insertion, the rate being 1¢ a word.

2. Assume that someone has left an umbrella in a local clothing store. Advertise it.

3. Assume that you lost the umbrella. Answer the advertisement by letter.

4. Write an application for the position in the clothing store referred to above. Use local names.

Lesson 31. Shoe Trade

Name some well-known brands of shoes. Name a place where many shoes are made. What material would you expect to find in a good pair of shoes? What is the meaning of "C.O.D."? If you were sent to deliver a pair of shoes to a friend, would you leave them without collecting the money, if they had not yet been paid for?

A local shoe store sells shoes at $3, $3.50, and $4, respectively. Business concerns of this nature expect to make at least 25 per cent on the sale of goods. Therefore, let us assume that the three grades of shoes mentioned above yield a profit of 75¢, $1, and $1.25 respectively. Let us further assume that one case of twenty-four pairs is sold on an average each business day for the year, and that this consists of an equal number of pairs of each grade.

If the expenses for rent are $160 a month; for a clerk, $20 a week; lights, $15 a month; one helper on Saturdays, $1 a day; and for a manager, $30 a week, what should be the net profits to the business concern for a year of 305 business days?

FOR SPELLING AND DEFINING

brands	respectively	material	publication	concerns
nature	mentioned	manager	business	average
inquiry	appropriate	profits	helper	yield

BUSINESS EXERCISES

1. Write an order to the Weber Shoe Factory, North Adams, Mass., for five cases of shoes. State the number of cases of each kind wanted.

2. Assume that at a local shoe store you bought a pair of shoes that were too small. Write a letter of inquiry about the matter.

3. The shoe dealer is willing to exchange the shoes. Write a letter to that effect.

4. Write an advertisement for shoes, appropriate for publication.

Lesson 32. Cabinet Making

What is a cabinet maker? Is handmade furniture better than that made by machinery, and why? What is "mission finish"? Name some different kinds of wood used in making furniture.

A cabinet maker, Mr. G. Miller, agreed to furnish one dozen costumers (hall trees), mission finish, for $48. Accordingly, he bought chestnut lumber for the purpose, paying at the rate of $40 a thousand. For each hall tree, it required one stick four inches square and six feet long. Each tree had four legs, twelve inches long, six inches wide, and one inch thick. Besides this, there was a waste of two feet of lumber for each tree. Each tree required four double brass hooks, costing 7¢ each. Each hook required two brass screws, costing 9¢ a dozen. Each leg required two brass screws, costing 15¢ a dozen. Glue cost one cent for each tree. The time required to do the work was as follows: to cut and fit each leg, one half hour; to cut and finish the standard, one hour; to attach the legs and hooks on each tree, one half hour; to polish, and apply mission stain on each tree, one half hour. The cost for turpentine, lampblack, and varnish was 7¢ a tree. If the cabinet maker values his time at 60¢ an hour, how much more than actual mechanic's pay did he receive for making the dozen hall trees? How much a tree?

FOR SPELLING AND DEFINING

cabinet	polish	machinery	purpose	finish
chestnut	apply	turpentine	costumers	attach
furniture	stain	mechanic	standard	varnish

BUSINESS EXERCISES

1. Using the name of a local hardware dealer, make out an itemized bill for the above material, except the lumber.

to a lumber dealer, ordering lumber for 20 costumers.

Lesson 33. Wood Sawing

Name several different kinds of fuel used in cook stoves. What is cordwood? What preparation is necessary in order that it may be burned in a cook stove? Is it a cheap fuel? How may we preserve our forests?

Mr. A. Barth bought an outfit for sawing firewood and started business April 1. He bought a combination gasoline engine and buzz saw of A. B. Farquhar, York, Pa., paying $250 for the machine F.O.B. York. The freight was $24. Two horses were bought at $125 each, and a harness at a cost of $60. A second-hand market wagon was bought for $40. Mr. Barth employed a helper, paying him $2 a day. The average amount of gasoline used per day was 8 gal. at 18¢ a gallon; and the average amount of oil used was one pint a day, and this cost 30¢ a gallon. Incidentals amounted to 20¢ a day. The price for sawing wood into stove-wood lengths is 50¢ a cord. If the average amount of wood sawed per day was 18 cd. and the average number of working days per month was twenty-five, what were the net profits from the business at the end of the season, September 1?

FOR SPELLING AND DEFINING

cook stove	profits	fuel	necessary	firewood
combination	engine	harness	employed	gasoline
preparation	current	season	buzz saw	cordwood

BUSINESS EXERCISES

1. Write a letter ordering the sawing outfit.
2. Mr. B. Crell had twenty-five cord of wood sawed. Make out the bill.
3. Write a receipt for payment of the above bill.
4. Make out a statement of receipts and current expenses for the month of May.

Lesson 34. Sawmilling

What is a custom sawmill? What is the best time of year for drawing logs, and why? What fuel is generally used in steam sawmills? What use is made of sawdust?

The owner of a custom sawmill had 560 logs on the logway, one fourth of which were hardwood. To run the mill, it required an engineer, a sawyer, and a man to carry lumber. The engineer received $2 a day; the sawyer, $3; and the carrier, $1.50. Expenses for oil, beltlace, sawteeth, etc., amounted to 50¢ a day. The average daily amount of lumber sawed was 3000 ft. of soft wood and 1000 ft. of hard wood. The price to customers for sawing was $3.50 a thousand for soft wood and $4.50 a thousand for hard wood. The average amount of lumber sawed from a log was 100 ft. After the logs were sawed, seven cords of slabs were sold at $1 a cord on the millyard. Find how much the owner realized after paying expenses. How much a thousand? How much a thousand did the engineer get?

FOR SPELLING AND DEFINING

custom	fuel	sawmills	sawdust	logway
engineer	sawyer	received	carrier	customers
slabs	mill yard	realized	cord	inserted

BUSINESS EXERCISES

1. A customer had 3500 ft. of pine and 800 ft. of oak sawed. Supplying local names, make out the bill.

2. Assume that you are the owner of the mill. Write to Henry Disston and Son, Philadelphia, Pa., for a price on a four-foot inserted tooth saw.

3. Write an order in favor of John Jones, the engineer, drawn a local store, for groceries to the amount of $10. Sign your own

Lesson 35. Cordwood Industry

How large is a cord of wood? Give some idea of the weight of a cord of wood when seasoned. Name several different kinds of wood. For what purpose does a brickyard use wood? Give the table for square measure.

A speculator, Mr. Charles Film, bought a woodlot consisting of four acres at $50 an acre. The lot was thickly covered with good firewood, but contained no sawing timber. The speculator sold the entire product to a brick company located ten miles from the woodlot. The price of the wood was to be $6 a cord, delivered. Two men were engaged to chop the wood at $1 a cord. At the end of sixty working days the choppers completed the work, and it was found that the average yield was one cord of wood for each 726 sq. ft. The speculator paid $3 a cord for hauling the wood to the brickyard. The teamster found his horses could draw a cord and a half to a load and make one trip a day. When the lot was cleared, it was sold for $8 an acre.

Find the speculator's net profits. How much did the choppers earn a day? How much did the teamster earn a week?

FOR SPELLING AND DEFINING

speculator	woodlot	acre	timber	entire
product	engaged	choppers	brickyard	hauling
cleared	seasoned	teamster	located	yield

BUSINESS EXERCISES

1. Supply the name of some brick company and write a letter to make a sale for the wood on the above mentioned woodlot.
2. Write an answer to the above letter.
3. Supply the name and make out the teamster's bill.
4. Advertise for choppers.

Lesson 36. Lumber Industry

Name several kinds of hard wood timber. Name several kinds of soft wood timber. State some uses of soft wood lumber; of hard wood lumber. Will green lumber serve for building? Why? Name a railroad and a river passing through Bellows Falls, Vt. In what State is York? State an important fact about Pennsylvania.

Mr. J. Bame had $1500 in the National Bank, and a woodlot that would yield 150,000 ft. of pine lumber and 50,000 ft. of oak. The soft wood lumber was sold at $30 a thousand, and the hard wood at $40 a thousand. The man found he could get a mill to saw the entire lot for $4 a thousand; but the logs would have to be placed upon the logway by the owner. On the other hand, a mill could be purchased to do the work. This was done. A Lane mill was ordered from the Lane Company, Bellows Falls, Vt., at a cost of $850. A portable steam engine was bought of A. B. Farquhar, York, Pa., at a cost of $650. Four horses were bought of J. D. Kittell, Montreal, Canada, at $150 each. The following expenses were incurred in sawing and drawing the lumber: sawyer's wages, 40 days at $3.50 a day; engineer's wages, 40 days at $3 a day; 5 laborers, 80 days each at $2 a day; use of 2 trucks, $29; oil, feed, and supplies, $158; living expenses, $300. When the job was completed, the outfit was sold for $1200. What should the man then have had in the bank?

FOR SPELLING AND DEFINING

timber	woodlot	Pennsylvania	portable	outfit	logway
lumber	incurred	important	expenses	engine	completed

BUSINESS EXERCISES

1. Write the order for the engine.
2. Write to a local lumber dealer to make sale for the oak lumber.
3. Make out a receipted bill to some local contractor for 8000 ft. *of hard* wood lumber and 5000 ft. of soft wood lumber.

Lesson 37. Corn Husking

What is corn husking? What other name is given to corn? What use is made of corn stalks? State the object of shredding stalks. Give the table for liquid measure. What is meant by "F.O.B."?

A steam thresher, Mr. W. Hills, wishing to increase his business, decided to take up corn husking. Accordingly, he bought a combined husker and shredder of the Keystone Husker Company, Sterling, Ill., paying $450 for it F.O.B. Sterling. The freight was $20. The daily expense for running the husker was as follows: for one engineer, $2; one feeder, $2; one man to measure the corn, $1.50; 2 qt. of machine oil at 25¢ a gallon; 1 pt. of cylinder oil at 30¢ a gallon.

The husker was run 10 days in September, 20 days in October, 24 days in November, and 6 days in December. The average amount of corn husked per day was 100 bbl. of 11 pecks each. The price for husking and shredding the stalks was 4¢ a bushel for the corn husked. The thresher paid the husker company all of the net profits from husking for the season. How much was still due on the husker?

FOR SPELLING AND DEFINING

husking	stalks	debt	thresher	combined
measure	machine	freight	engineer	feeder
payable	cylinder	due	applied	shredding

BUSINESS EXERCISES

1. Mr. John Phelps had 250 bbl. of corn husked. Make out the bill.

2. Write the letter as the thresher would write to the Keystone Company, enclosing the net profits from husking to be applied on the debt for the husker.

3. Make out the receipt for the money paid.

4. Write a note payable in one year to settle the balance due on the husker.

Lesson 38. Steam Threshing

Why is the season so short for threshing? Name several kinds of grain raised in this section. What are some of the different kinds of power used in threshing?

Mr. Henry Legal had $1000 in a local bank. With this capital, he decided to engage in the steam threshing business. Accordingly, he bought his outfit so as to be ready for business September 1. He bought a twelve-horse-power traction engine of S. W. Wood & Son, Clyde, N.Y., the price being $850, delivered. He bought a Universal Thresher of J. W. Butterworth, Trenton, N.J., for $450. A water tank was bought of G. H. Harder & Co., Chicago, Ill., for $75. The freight was prepaid on the thresher and tank. Mr. Legal bought 100 ft. of seven-inch, five-ply rubber belt at 30¢ a foot and 50 ft. of three-quarter-inch hose at 12¢ a foot. The hose and belt were bought of the Fairbanks Company, Cleveland, Ohio. Extras cost $50 for the season. The thresher ran his machine until December 1, working 20 days each month. He hired two men, paying each $1.50 a day while the machine was in operation. The average amount of grain threshed per day was 300 bu. of rye for half the time and 800 bu. of oats for the remaining time. He received 6¢ a bushel for threshing rye and 3¢ for oats. How much should the thresher have had in the bank, December 1, if he paid all bills in full?

FOR SPELLING AND DEFINING

engine	operation	decides	threshing	tank	traction
tracer	remaining	delivered	universal	local	machine

BUSINESS EXERCISES

1. Mr. Frank Best had 300 bu. of rye and 800 bu. of oats threshed. Make out the bill.

2. Write to the Fairbanks Company, ordering the belt.

Lesson 39. Hay Pressing

What is the object of baling hay? Describe the process of making hay. Name two or three kinds of grass commonly found in the hay field. About what is the time of year for making hay? Give some idea of the price of hay. Name some animals that eat hay.

On September 1, Mr. John Holt, Portland, Me., bought a Deedrick hay press, at a cost of $350. He bought a horse for $150 and a heavy single harness for $30. He hired a man, George West, to work until the close of the season, which was the first of the following April. Mr. West received $25 a month. The press was in operation, on the average, twenty-four days a month. The average amount of hay pressed was 80 bales a day, and the bales averaged 200 lb. each. The price received for pressing was 75¢ a ton. During the season, the expense for repairs was $20 and for incidentals $10. At the close of the season the outfit was sold for $375. Find the presser's net proceeds. How much did he get a day?

FOR SPELLING AND DEFINING

pressing	harness	amount	averaging	season
expense	process	repairs	outfit	baling
incidentals	proceeds	received	weight	single

BUSINESS EXERCISES

1. Mr. James Albert had ninety-eight bales of hay pressed, the bales being of average weight. Make out the bill for pressing.

2. Mr. Ralph Barth owes the presser $40. Make out an order for the money in favor of the hired man.

3. Mr. Edward Coons has about fifty tons of hay to press. Write a letter to the presser, engaging him to press the hay.

4. Mr. Nason Duke bought the outfit. Make out a sixty-day note in settlement for the same.

Lesson 40. Feed Industry

Name several different kinds of grain raised in this section. Name a section of the United States noted for corn raising. Name a section noted for wheat raising. Give the table for avoirdupois weight.

During the month of December a local feed dealer did the following business: bought of H. H. McEwan & Co., Ogdensburg, N.Y., four carloads of corn, each containing 1000 bu., at 30¢ a bushel, freight prepaid. The cost for unloading was 5¢ a hundredweight. In shipping and grinding into meal, there was a shrinkage of 4000 lb. on the entire lot. The meal was retailed at $1.70 a hundredweight. During the month, one carload of oats was bought of Barber and Bennett, Chicago, Ill. The car contained 1500 bu. at 48¢ a bushel. Cartage cost 5¢ a hundredweight. The oats were sold at 55¢ a bushel. A carload of middlings was bought of the same firm. The car contained 400 sacks of 100 lb. each at $26 a ton, cartage 5¢ a hundredweight. The middlings were sold at $1.50 a hundredweight. An employee receives $25 a month; the manager, $100. Find the net profits for the month.

FOR SPELLING AND DEFINING

section	raising	carloads	containing	prepaid
unloading	shipping	grinding	shrinkage	salary
manager	cartage	middlings	quotations	retailed

BUSINESS EXERCISES

1. Supplying names, make out a check to pay for the corn.

2. Mr. J. Smith had five sacks of middlings, 20 bu. of oats, and a ton of meal. Make out his bill and write a letter to send with it, asking for an immediate settlement.

3. Write a telegram to Barber & Bennett, asking them to send a tracer after the carload of oats shipped December 2.

4. Write McEwan & Co. for quotations on corn for January 1.

Lesson 41. Milk Industry

What are the duties of the men who have charge of the cows? State the duties of milk inspectors. What are some of the qualities of a good cow? State the advantage of milk tickets. Name some different milk products sold by the milkman. Give the table for liquid measure. What has the law to do with the quality and measure of milk sold to consumers?

Mr. E. Tifft has forty cows valued at $60 each. The average amount of milk given by each cow is 16 qt. a day, and the milk is peddled out at 8¢ a quart. The cows consume grain to the amount of 30¢ a head each day. During a month they eat ensilage valued at $50. The milking requires two men, each receiving $2 a day. The expense for horse feed is 60¢ a day. Two men deliver the milk, each receiving $2 a day for their service. Interest on money invested in cows amounts to $12 a month. Find the net income to the owner for the month of November.

FOR SPELLING AND DEFINING

duties	advantage	qualities	favor	products
liquid	inspectors	peddled	owner	ensilage
requires	invested	income	note	interest
customer	advertise	consume	valued	amounts

BUSINESS EXERCISES

1. Make out checks to pay the hired men for the month, supplying local names.

2. Assume that a customer had two and a half quarts of milk a day. Supply a common name and make out the bill for the month.

3. Draw up a thirty-day note in favor of some local feed dealer in settlement for two tons of feed at $30 a ton.

4. Advertise for a man to work on a milk wagon. Mention the wages that will be paid.

Lesson 42. Cheese Making

Name several different uses of milk. Why should a pound of butter be worth more than a pound of cheese? Mention several different kinds of cheese. Distinguish between the terms *creamery* and *cheese factory*.

A company operating a cheese factory engaged the milk produced on fifteen farms for the purpose of manufacturing cheese. The average amount brought from each farm was 120 lb. daily. The agreement was that the company should make and cure the cheese, receiving nine tenths of a cent a pound for the work. The charge for commissions and freights was $2\frac{1}{2}$¢ a pound. After some experience it was learned that 100 lb. of milk, on the average, made 10 lb. of cheese. The wholesale price received for the cheese was $14\frac{1}{2}$¢ a pound. From the above data, find the average net amount each farmer received for milk during a month of thirty-one days. What did the company receive?

FOR SPELLING AND DEFINING

different	factory	manufacturing	firm	wholesale
operating	cheese	agreement	receipt	weighing
distinguish	engaged	commissions	data	produced
creamery	pound	experience	cure	several

BUSINESS EXERCISES

1. A company shipped fifty cheeses each weighing 40 lb. to a firm in New Haven, Conn. The price of the cheese was $14\frac{1}{2}$¢ a pound. Supply the names and make out the bill.

2. Make out a check to pay the bill.

3. Make out a check to pay Mr. E. Fish, one of the above farmers, for milk sent to the factory for a month of thirty-one days.

4. Mr. G. Abel bought and paid cash for two forty-pound cheeses at the above wholesale price. Make out a receipt for the money. Supply necessary name.

Lesson 43. Bread Making

What are the chief ingredients used in making bread? State the office of yeast in bread making. Name a section of the country that produces much wheat. How many pounds in a barrel of flour? Mention some conditions that affect the price of wheat flour.

The average quantity of ingredients required to make a loaf of bread weighing 20 oz. and selling at 10¢ is as follows: 2 tablespoonfuls of lard, one fourth of a pint of milk, 3 cups of flour, and one half of a yeast cake. A pound of lard contains 32 tablespoonfuls, and 2 cups of flour weigh a pound. The average prices of the ingredients, respectively, are as follows: lard, 16¢ a pound; milk, 8¢ a quart; flour, $6.50 a barrel; yeast cakes, 2¢ each. The cost for salt and sugar in making bread from a whole barrel of flour is 8¢.

From the above data, find the profit in making 3 bbl. of flour into bread, assuming that the cost for fuel for the entire lot is $1.40.

FOR SPELLING AND DEFINING

tablespoonfuls	chief	contains	ounces	yeast
ingredients	fuel	quantity	arranging	weighs
produces	lard	entire	material	office

BUSINESS EXERCISES

1. Using local names, make out a bill for the material with which to make three barrels of flour into bread.

2. Write a letter to a local baker, arranging to have two loaves of bread left at your house every morning.

3. Write an advertisement for a boy wanted to work in a bakery. Use local names.

4. Assume that you are looking for a position. Write an application for the position as advertised in Exercise 3.

Lesson 44. Farming

Name several common farm products. Name several different kinds of apples. What is a creamery? Give the table for avoirdupois weight. Name some factors that govern the prices of farm products.

During the month of November, a farmer, Mr. Edward Wells, sold the following products: 32 bbl. of potatoes at $2.50 a barrel; 20 bbl. of apples at $3 a barrel; 450 lb. of pork at $9 a hundredweight; 40 fowls at 50¢ each, live weight; 10 turkeys each weighing 12 lb. at 25¢ a pound, dressed; 18 eggs a day at 40¢ a dozen; 6000 lb. of hay at $20 a ton. The amount of milk produced averaged 150 lb. a day. This was sold at a creamery at $2 a hundredweight.

Expenses for the month were as follows: 2 tons of bran at $1.50 a hundredweight; a half-ton of meal at $1.60 a hundredweight; labor, 30 days at $1.75 a day; one double harness at $60; groceries, $18.

From the above data, find the farmer's net proceeds for the month. At the same rate, find the proceeds for a year, counting thirty days to a month.

FOR SPELLING AND DEFINING

products	creamery	factors	barrel	potatoes
avoirdupois	weight	turkeys	bran	harness
groceries	proceeds	apples	fowls	govern

BUSINESS EXERCISES

1. Write to some local dealer to make a sale for the potatoes.
2. Supplying local names, make out a bill for the pork, fowls, and turkeys.
3. Using local names, make out a check to pay for the feed.
4. Assume that the farmer wishes to discontinue the sale of milk at the creamery. Supply the name of a superintendent and write a letter accordingly.

Lesson 45. Maple Syrup Industry

Why is it necessary to restrict the maple syrup industry to a particular time of year? Can maple sugar be made from maple syrup? How? Are there any substitutes for maple syrup? How is the syrup obtained from the sap? Name different kinds of maple trees. What particular kind is used for sugar making?

Mr. L. Rude has a sap bush consisting of 100 large maple trees. He decided to tap the trees, and accordingly he ordered the following tools from Mead, Searles, & Co., Chicago, Ill.: three spiles for each tree, at 4¢ each; one bucket for each tree, at 10¢ each; one axe at $1; one brace and bit at 75¢; one kettle at $3; one sapyoke at $1.25. Freight amounted to $1.

The trees were tapped April 1, and the run of sap lasted 10 days; the average amount of sap procured from a tree was 10 qt. a day. It took 25 qt. of sap to make one quart of syrup. The syrup was sold at $1.25 a gallon. The tools were sold at the close of the season for $14. Find how much the farmer realized a day for making syrup.

FOR SPELLING AND DEFINING

procured	kettle	consisting	substitutes	spiles
necessary	restrict	industry	settlement	syrup
obtained	decided	bucket	particular	brace
tapped	arrived	telephone	sapyoke	tools

BUSINESS EXERCISES

1. Make out the bill for the tools. Write a letter to enclose with the bill, asking for a prompt settlement.

2. Make out a check to pay the bill.

3. Write a letter to some local grocer to make sale for the syrup. Speak of the price and quality of the goods.

4. Write the words most likely used in calling the freight office by telephone, to find out whether the tools had arrived.

Lesson 46. Truck Gardening

Name several kinds of vegetables seen in market. Mention ways in which cabbage is used. Give the table for linear measure.

A gardener had a plot of ground ten rods square that he wished to set out to cabbage. Accordingly, he hired the ground plowed and harrowed, paying $8 an acre for the work. He planned to have the rows 3 ft. apart, the first row being 18 in. from the edge of the field. The plants were to be set 2 ft. apart in the row, the first plant being set 6 in. from the ends of the rows (83 plants to the row). The plants were bought at a cost of 10¢ a hundred. The cost for fertilizer was $28.43. In setting the plants, it was necessary to hire two men three days, paying them each $2 a day. The plants were hoed five times. It took two men two days each time to hoe the field. They each received $2 a day.

Five hundred sixty-five plants failed to mature. One fourth of the remainder were sold as "seconds" at 3¢ a head. One thousand select heads were drawn to market and sold at 6¢ a head. Two thousand heads were sold in the field at 5¢ a head. Find how much the gardener realized above expenses from his cabbage crop.

FOR SPELLING AND DEFINING

linear	vegetables	hoed	plowed	harrowed
mature	fertilizer	crop	gardener	received
quality	remainder	select	realized	necessary

BUSINESS EXERCISES

1. Advertise for men to work at gardening. Supply names.

2. Assume that you are the gardener. Write to some dealer in vegetables to make sale for the select cabbage. Explain fully the kind and quality and what the goods should bring in market.

3. Write a reply to the above letter.

Lesson 47. Wheat Raising

Name a section of the country noted for the production of wheat. How is flour made? What are the uses of flour? Name several kinds of flour. Give the table for square measure. Mention different ways of plowing the ground.

Mr. Thomas Brown had a field one half mile long and one quarter of a mile wide, which he wished sowed to wheat. Accordingly, he hired a man with two gang plows to do the plowing. The price paid was \$30 a day for each plow, and each turned ten acres a day. It required six pecks of seed for an acre, and this cost 70¢ a bushel. Two teams with drills were secured to sow the grain. Each team drilled ten acres a day, and the price paid for their services was \$6 a day for each team. Harvesting cost \$2 an acre. Threshing cost $4\frac{1}{2}$¢ a bushel. The cost for cartage and incidentals amounted to 16¢ a bushel. The yield was 24 bu. to the acre, and the grain was sold at 65¢ a bushel. Find the farmer's net receipts from his wheat crop.

FOR SPELLING AND DEFINING

required	flour	field	sowed	gang plow
threshing	acre	secured	services	harvesting
square	cartage	receipts	deposit	production

BUSINESS EXERCISES

1. Make out a check to pay Mr. Albert Harris for plowing the field.

2. Supply the name of some grain dealer and make out a bill for the wheat.

3. Assume that the farmer wishes to deposit the money received for wheat in some local bank. Write a letter, enclosing the money.

4. Write an acknowledgment of the receipt of the money by the bank.

Lesson 48. Corn Raising

State some uses of corn. Name a section of the country noted for corn raising. What is the use of phosphate? What use is made of cornstalks?

A farmer having a field 40 rd. square wished to have it planted to corn on shares. Accordingly, a neighbor, Mr. G. Fisk, agreed to plant the field, crib the corn, and stack the stalks for one half the crop, provided the owner would pay for one half the seed, phosphate, and husking. The offer was accepted. The corn was planted June 20. The amount of fertilizer used was 300 lb. per acre, and it cost $30 a ton. It required six quarts of seed corn per acre, and the corn cost $1.28 a bushel. The yield was 100 bu. of corn on the cob per acre. The field yielded two tons of stalks per acre. It cost 5¢ a bushel to get the corn husked, and this included stacking the stalks and cribbing the corn. The corn was sold for 80¢ a bushel after it was shelled. The cost for shelling was borne by the purchaser. It required 2 bu. of corn on the cob to make one bushel of shelled corn. The stalks were sold for $6 a ton in the stack. It cost the neighbor 20 per cent of what the owner received for his share of the net receipts for hired help. Find how much each man realized from the crop.

FOR SPELLING AND DEFINING

phosphate	cornstalks	shelled	owner	accepted
fertilizer	department	yielded	stacking	neighbor
purchaser	agriculture	realized	husker	pamphlet

BUSINESS EXERCISES

1. Write a letter to the Department of Agriculture, Washington, D.C., asking for a pamphlet on "Corn Raising."
2. Write to a local feed dealer to make sale for the corn.
3. Write to a steam husker to engage him to husk the corn.

Lesson 49. Potato Raising

Discuss the value of the potato as a food. Why is it necessary to spray the potato field with Paris green? How are potatoes kept during the winter? What is the purpose of phosphate?

A farmer, Mr. C. Knapp, had a field forty rods long and four rods wide which he wished to plant to potatoes. Accordingly, he paid $5 an acre for plowing and one half as much for harrowing and marking. The rows were put 3 ft. apart each way and 18 in. from the edge of the field on all sides. It required 2 bbl. of potatoes to plant the field, and these cost $3 a barrel. It required 1000 lb. of phosphate for the field, and this cost $30 a ton. A man was hired four days at $1.50 a day to plant the potatoes. Spraying with Paris green, once, cost $2.65. The potatoes were cultivated and hoed three times at a cost of $6 each time. It cost 12¢ a barrel of eleven pecks to get the potatoes dug, and the average yield per hill was one quart of potatoes. The crop was sold at $2.50 a barrel, and it cost 25¢ a barrel for hauling. Find how much the farmer realized from his potato crop.

FOR SPELLING AND DEFINING

discuss	phosphate	spray	potato	acre
plowing	harrowing	plant	marking	hired
spraying	cultivated	yield	hauling	forty
crop	favorable	value	realized	peck

BUSINESS EXERCISES

1. Write an order to some dealer for one half ton of phosphate.
2. Write a letter to some local dealer to make sale for the potatoes.
3. Write a favorable answer to the above letter.
4. Write to the Department of Agriculture, Washington, D.C., asking for a pamphlet on "Potato Growing."

Lesson 50. Sugar Beet Industry

Name several different kinds of sugar. Name sections of the country that produce sugar. Name the most common sugar producing plants. What form of sugar is most commonly seen in market?

A farmer had a field containing 20 acres, which he sowed with sugar beet seed. It required 20 lb. of seed for an acre, and the seed cost 15¢ a pound. He paid $5.50 an acre for thinning, $8 an acre for weeding, and $6 an acre for gathering and topping. The cost for seed, thinning, weeding, topping, and pulling was only 50 per cent of the entire cost of the beets delivered at the sugar factory. The yield was 15 tons to the acre, and in removing the dirt there was a shrinkage of 10 per cent on the above yield. The farmer hired the sugar prepared for market at the factory, paying $2.50 a hundredweight for the preparation. The beets yielded 220 lb. of sugar per ton. After the sugar was ready for market, it was sold at the factory for $4.75 a hundredweight. Find the farmer's profits on the crop. How much an acre?

FOR SPELLING AND DEFINING

sections	produce	sowed	thinning	weeding
gathering	topping	delivered	factory	yield
removing	shrinkage	prepared	crop	suitable

BUSINESS EXERCISES

1. Supplying appropriate names, write to some sugar-making concern or company to arrange for making the sugar from the above crop of beets.

2. Write a favorable reply to the above letter.

3. Assume that help is wanted to work in the beet field. Draw up a suitable advertisement for the same. Supply name.

4. Answer the above advertisement. Sign your name.

Lesson 51. Strawberry Raising

How many rods in an acre? What part of an acre is a plot ten rods square? Name a good berry market in this section. Tell what you know about shipping berries long distances.

A farmer had a plot of ground ten rods square which he had set with strawberries. He hired it plowed and harrowed, paying $8 an acre for the work. The plants were set 12 in. apart in the rows, and the rows were 3 ft. apart. The plants were started 6 in. from the ends of the rows, and the rows started 18 in. from the edges of the field. The plants cost 20¢ a hundred, and it cost 10¢ a hundred to get them set. The farmer hired a man with a horse five days at $3 a day to cultivate the berries. The berries were hoed four times, and it took two men four days each time the berries were hoed. The men each received $2 a day. Weeding was done twice, and each time it took two men five days. They each received $2 a day. The berries were ready for picking the following June. The plot yielded three pickings a week for three weeks, and the average yield was 1000 baskets each picking. The cost for picking was 2¢ a basket; for drawing, 1¢ a basket. The baskets cost 50¢ a hundred; the crates, $4 for the season. The average price received for the berries was 10¢ a basket.

Find the farmer's net income from the berry crop.

FOR SPELLING AND DEFINING

farmer	cultivate	section	plowed	harrowed
plot	shipping	weeding	picking	yielded
season	strawberries	basket	market	distance

BUSINESS EXERCISES

1. Mr. Fred Adams picked one hundred baskets of berries each picking; he drew three thousand baskets to market, and hoed berries sixteen days. Make out the bill to yourself.

Lesson 52. Tea Raising

What is meant by the term "staple article"? What can you say of tea as a staple article? Give some idea of how extensively tea is used. Name a country that produces much tea. Give some idea of the retail price of tea.

Tea, as we buy it at the store, is prepared from the leaves of the tea plant. After picking, the leaves are withered, rolled to break the oil cells, and then dried on large trays. The tea is then put into chests containing 40 lb. each, for shipment.

A man in India had a tea plantation containing 89 rows of plants, and each row contained 240 plants. The average amount of green leaves picked from a plant for the season was $1\frac{1}{2}$ lb. The owner paid $1\frac{1}{2}$¢ a pound for picking. After the tea was cured and dried, it had decreased 80 per cent in weight. The cost for curing and packing into chests was one fourth of the amount received for the dried tea. The tea was sold by the chest at 14¢ a pound. Find how much the owner realized from his crop.

FOR SPELLING AND DEFINING

withered	staple	prepared	extensively	picking
decreased	article	chests	plantation	cured
realized	trays	purchaser	acknowledge	India

BUSINESS EXERCISES

1. Assume that you are in the grocery business. Order five chests of tea from Jones and Company, Boston, Mass., the price of the tea being 22¢ a pound.

2. Make out the bill for the tea.

3. Write a check to pay for the tea.

4. Write a letter acknowledging receipt of the check and thanking the purchaser for same.

Lesson 53. Coffee Raising

Name a country noted for the production of coffee. Distinguish between imports and exports. Compare coffee with tea as to use. How would you make a cup of coffee?

A man in Brazil had a piece of land 100 rd. long and 40 rd. wide on which were planted 416 coffee trees to the acre. After gathering the coffee for the season, it was found that the average yield was $1\frac{9}{10}$ lb. per tree. The care of the trees for the season cost the owner $1\frac{1}{6}¢$ a pound for the coffee produced. It cost him $3\frac{1}{8}¢$ a pound to harvest and sack the coffee. The cost to export the coffee to San Francisco, Cal., cost $\frac{2}{3}¢$ a pound. The coffee was sold by the sack to a roaster, the price being 8¢ a pound. In roasting, the coffee decreased 15 per cent in weight, but it was then sold by the roaster for 15¢ a pound. Find the net receipts for both the producer and the roaster.

FOR SPELLING AND DEFINING

planted	coffee	production	imports	Brazil
receipts	gathering	San Francisco	exports	roaster
tracer	grocer	instructing	harvest	delayed
season	noted	distinguish	shipment	rod

BUSINESS EXERCISES

1. Supplying the name of a local grocer, order 200 lb. of coffee from H. Smith and Company, San Francisco, Cal.

2. Write an acknowledgment of the above order, instructing the purchaser regarding shipment.

3. Assume that the coffee was delayed on the railroad. Write a telegram asking the company to send a tracer after the goods.

4. Write a paragraph recommending the use of some particular brand of coffee.

Lesson 54. Fruit Growing

Name some common varieties of apples. What uses are made of apples? How may frost affect the price of apples? Where is Washington, D.C.? Why important?

A farmer, Mr. Hoag, had ten rows of apple trees set out on his farm. Each row contained ten trees. Three fifths of the trees were of the Baldwin variety, one fifth greenings, and the remainder northern spies. The trees cost 30¢ each, and it cost 5¢ a tree to get them set. Fourteen trees died the first year, four being the Baldwin, four the greening, and the remainder northern spies. The other trees matured. The cost for spraying, grubbing, and trimming was $20 a year, beginning with the second year. The fifth year, the trees yielded, on the average, one half barrel per tree. The Baldwins were sold at $2 a barrel, the greenings at $1.75, and the spies at $1.50. There were no apples the sixth year, as a frost destroyed the blossoms. The seventh year, the average yield was one barrel to the tree. The prices received this year were for Baldwins, $1.50; greenings, $1.25; and for spies, $1 a barrel, respectively. The price paid for picking each time was 10¢ a barrel. Find the profit from the orchard until the end of the seventh year, counting the cost for barrels 10¢ each and disregarding the use of the land.

FOR SPELLING AND DEFINING

varieties	frost	grubbing	remainder	contained
spraying	use	trimming	disregarding	matured
blossoms	picking	orchard	composition	destroyed

BUSINESS EXERCISES

1. Write to the Department of Agriculture, Washington, D.C., asking for a booklet on spraying trees.
2. Write a short composition on the subject, "Uses of the Apple."

Lesson 55. Rice Growing

Name some rice-producing states. What is meant by irrigation? Discuss the value of rice as an article of food. What class of people is noted for the consumption of much rice? What kind of land is required for rice growing?

Unlike the other cereals, rice is a grain that requires very much water. The seed is sown, and immediately the field must be flooded with water. When the crop is ready for harvesting, the field is drained.

The amount of rice usually sown on an acre is two and one half bushels. A farmer in Louisiana sowed 50 bu., from which he received a yield of 1620 lb. to the acre. He gave one fifth of the crop for irrigating his field. It cost him $18.25 an acre to raise the rice, aside from the expense for irrigating and harvesting. He employed a man with a team to harvest the grain at a cost of 50¢ an acre. Counting 45 lb. to the bushel, find how much the farmer realized from his crop, having sold the rice for 90¢ a bushel.

FOR SPELLING AND DEFINING

producing	drained	field	acknowledgment	Louisiana
wholesale	cereals	yield	consumption	usually
realized	article	bushel	harvesting	discuss
irrigation	notice	dealer	immediately	received

BUSINESS EXERCISES

1. Write an order from some wholesale dealer in Jersey City, N.J., to some rice grower in Louisiana, for 50 bu. of rice.

2. Write an acknowledgment of the above order for rice.

3. Assume that the rice has arrived at the Pennsylvania Freight House, Jersey City, N.J. Write a notice of arrival to the dealer.

4. The dealer wishes to inform the Railroad Company by postal that he will unload the rice immediately. Write the form.

Lesson 56. Peanut Raising

Name a section of the United States noted for the production of peanuts. About what is the retail price of peanuts? How are peanuts most commonly retailed? How many rods in an acre?

A farmer in Virginia had a field 40 rd. square which he decided to devote to the production of peanuts. He paid \$2.50 an acre to have the ground prepared. The seed cost \$1.10 a bushel, and it required 2 bu. to the acre to plant the field. The following expenses per acre were incurred in producing the crop: planting, \$1.15; cultivating, \$4.80; harvesting, \$16.50. The average yield per acre was 60 bu. Eighty per cent of the crop was sold in the field at 95¢ a bushel, while the balance of the crop was shipped to market at a cost of 15¢ a bushel for transportation and sold at \$1.25 a bushel. Find the net receipts for the peanut crop. How much would the farmer have gained by shipping the entire crop?

FOR SPELLING AND DEFINING

transportation	devote	incurred	receipts	statement
appropriate	yield	peanuts	notifying	cultivating
harvesting	retail	Virginia	balance	prepared
production	broker	proceeds	privilege	shipment

BUSINESS EXERCISES

1. A man paid \$5 for the privilege of selling peanuts at a picnic. He sold 6 bu. at the rate of 5¢ a pint. The peanuts cost him \$1.50 a bushel. Make out a statement to show the proceeds.

2. Supplying appropriate names, make out bills for the peanuts sold by the Virginia farmer.

3. Write a letter from a shipper in Richmond, Va., to a broker in Chicago, Ill., notifying the latter of a shipment of peanuts.

4. Write a reply from the broker in Chicago, acknowledging receipt of the goods.

Lesson 57. Poultry Industry

Name several different kinds of hens. Why is the price of fresh eggs so high during the winter? What is the substitute for fresh eggs? Name several uses of eggs. Name several different kinds of food suitable for hens.

A man taking up the poultry business decided to construct his own building. The lumber required was as follows: 500 ft. of "two-by-fours" at $20 a thousand; 2500 ft. of siding at $30 a thousand; eight squares of steel roofing at $5 a square; 500 ft. of plank at $25 a thousand. The lumber was bought of a local dealer and delivered at the above prices. The poultryman bought 35 white leghorn hens at 60¢ each, and poultry food to the amount of $20, which was sufficient to last the hens three months of thirty days to the month.

If the hens layed, on the average, 24 eggs a day for the three months, and eggs were worth 50¢ a dozen, how much would the business still owe the man at the end of the three months, counting his services 50¢ a day for each day during the entire time?

FOR SPELLING AND DEFINING

different	substitute	poultry	decided	lumber
siding	squares	local	delivered	leghorn
sufficient	services	plank	hatching	roofing

BUSINESS EXERCISES

1. Make out a bill for the lumber, using local names.

2. Supplying common names, write a letter to find out the price of 50 plymouth rock hens.

3. Assume that you are starting in the poultry business. Write a letter to a friend, telling your plans.

4. Advertise white leghorn eggs for hatching. State the price and use your own address.

Lesson 58. Oyster Industry

Name a locality noted for the production of oysters. Where is Baltimore? State the uses of oysters. At what season of the year are oysters considered not very good? How may oysters be preserved?

Two men, Messrs. Brown and Hall, Baltimore, Md., staked 200 acres of beach land in Chesapeake Bay for the purpose of planting oysters. Accordingly, they bought 1500 bu. of oyster shells with which to cover the ground. The shells cost 3¢ a bushel, delivered at the beach. The average number of seed oysters per barrel was 12,000. The seed cost one cent a hundred, and it required 30 bbl. of seed for an acre.

One twelfth of the oysters planted were lost or stolen, and one eleventh of the remainder were destroyed by sea animals. Forty per cent of those that matured were gathered, of which 12½ per cent were sold as select oysters at 80¢ a hundred. The balance of the crop gathered was sold at 40¢ a hundred. If the two men worked at the business six years, dividing the profits equally, find how much each received a year for his labor, allowing 50 per cent of the receipts for hired help.

FOR SPELLING AND DEFINING

locality	production	noted	considered	oysters
preserved	Chesapeake	planted	destroyed	animals
matured	gathered	select	balance	dividing
equally	Baltimore	staked	specified	beach

BUSINESS EXERCISES

1. Supplying appropriate names, make out a bill for 500 select oysters and 500 second grade oysters at the prices specified above.
2. Make out a check to pay the bill.
3. Write a short composition on the oyster industry.

Lesson 59. Sheep Raising

Name some articles made of wool. Why is a woolen garment better than one made of cotton? Name a section of the United States noted for sheep raising. What is mutton?

A speculator bought fifty sheep May 1, 1912, at a cost of $8 a head. He hired them pastured for the summer, paying $1 a head for the season. The sheep were stabled October 1, following, when it was necessary to feed them hay and grain. It takes, on the average, 3000 lb. of hay to winter a cow, and ten sheep will eat as much as one cow. The hay is worth $20 a ton. The grain consumed was at the rate of 2 bu. a month for ten sheep. The grain cost 80¢ a bushel. May 1, 1913, the sheep were shorn and turned out to pasture. The average weight of each fleece was 5 lb. The wool was sold at 25¢ a pound. It cost 15¢ a head for shearing. At this time, the flock had doubled in number, and the lambs were sold three months later at $7 a head. After paying pasturage for the old sheep until October following, five sheep were lost, and the others were sold at $8 a head. Find the result of the speculation, counting $30 for barn rent and a chore boy.

FOR SPELLING AND DEFINING

articles	woolen	garment	pastured	fleece
sheep raising	mutton	speculator	doubled	chore
stabled	necessary	consumed	shearing	rent

BUSINESS EXERCISES

1. Assume that five sheep were lost. Write an advertisement for publication. Sign your own name.

2. Assume that Mr. B. Adsit has found five sheep. Write his answer to the above notice.

3. Using local names, make out a bill for the hay and grain consumed by the sheep while in the stable.

Lesson 6o. Hog Raising

Name several kinds of meat produced from the hog. Name and locate a city noted for meat packing. Describe a meat market. Name one in your town or city.

A man bought four hogs October 1, 1912, at $10 apiece. The hogs were kept until the first day of May following, when the number had increased to 44. Until this time the hogs had each eaten 2 qt. of grain a day. On June 1, 20 of the young pigs were sold at $3.50 each. The remainder of the pigs were kept until November 1, when they were sold for pork at $10 a hundredweight, the average weight being 200 lb. each. The pigs each ate 2 qt. of grain a day for the first four months, beginning June 1. The remainder of the time they ate double that amount. The old hogs were each fed 4 qt. a day from May 1 until September 1, when they were sold at $9.50 a hundredweight, dressed. The average weight per hog was 350 lb. Labor and incidentals amounted to $20. Assuming that the grain was worth 80¢ a bushel, find the profit from the business.

FOR SPELLING AND DEFINING

produced	packing	remainder	eaten	amount
average	weight	increased	double	bushel
quarts	labor	beginning	worth	describe
business	pork	suitable	locate	apiece

BUSINESS EXERCISES

1. Write to the Department of Agriculture, Washington, D.C., asking for a booklet on "Hog Raising."

2. Mr. C. Vickery has twenty pigs to sell. Write an advertisement for the same, suitable for newspaper use.

3. Write a letter from a farmer to some dealer in meat to make 1400 lb. of pork.

Lesson 61. Stock Raising

Distinguish between the terms veal and beef. Why do milkmen not want cows that are very young? What is done with cows that are too old for the dairy? State some conditions necessary to successful stock raising. What is meant by the term "on the hoof"?

A man has a pasture that will keep 35 yearlings or 21 cows from May 1 until October 1. The usual rate for pasturage for the season is $3 for yearlings and $5 for cows. He decided to take up stock raising and not rent the pasture. Accordingly, on May 1, he bought 35 yearlings at $10 a head. After pasturing them until October, the man hired a barn, paying $5 a month as rent for the winter. The average amount of hay consumed per head for the winter was 1800 lb., and this cost $16 a ton, delivered. The average amount of grain consumed was 30 lb. per head, each month while in the stable. The grain was delivered at $28 a ton. The stock was sold May 1. Fifteen head were sold for beef. They were sold on the hoof at 7¢ a pound. The average weight was 450 lb. The others were sold at $30 a head as cows, except one which died. Allowing $20 a month for a chore boy and $25 for fence repairs, find the profit or loss in the undertaking.

FOR SPELLING AND DEFINING

distinguish	yearlings	veal	dairy	usual	conditions
successful	consumed	pasture	hoof	chore	necessary

BUSINESS EXERCISES

1. Using local names, make out a bill for the feed used.
2. Write a letter to some dealer in hay, asking for a price. Ask for all necessary information on the subject. Sign your own name.
3. Write a favorable answer to the above letter.
4. Selecting local names, write a receipt to cover payment for the stock sold for beef.

Lesson 62. Cotton Raising

Name some of the uses of cotton. Name a section of the United States noted for the production of cotton. What is a cotton gin? How did the invention of the cotton gin affect the amount of cotton produced?

A farmer rented a piece of land a half-mile long and twenty rods wide for the purpose of raising cotton. He agreed to give the owner 20 per cent of the receipts from the crop for the use of the ground. The cost per acre for raising and marketing the cotton was \$8.70. The yield per acre was 480 lb. of seed cotton, one third of which was lint and the remainder seed. The lint was sold at $6\frac{1}{4}$¢ a pound, and the seed was sold at 13¢ a bushel. The weight of a bushel of seed is 30 lb. Had the farmer paid \$2 an acre for the use of the ground instead of 20 per cent of the receipts, would he have gained or lost by so doing and how much?

FOR SPELLING AND DEFINING

production	rented	remainder	affect	employment
invention	gin	proceeds	engage	marketing
ordinary	lint	thirteen	bushel	probable
quarter	instead	bureau	broker	receipts

BUSINESS EXERCISES

1. Write to some employment bureau in Richmond, Va., to engage twenty cotton pickers to pick cotton at one cent a pound. Supply necessary names.

2. Write a reasonable reply to the above letter. Inquire when the pickers will be needed.

3. Supplying ordinary names, write a letter to a broker in Philadelphia, Pa., to make sale for the cotton above mentioned.

4. Assume that the broker wishes to buy the cotton. Write a letter to that effect.

Lesson 63. Silk Industry

Name a country noted for the production of silk. State some uses of the mulberry tree. Name several articles made of silk. Discuss the wearing qualities of silk.

Silk is obtained from the silkworm, which feeds on the mulberry tree. The worm forms a cocoon about itself with its silk thread and, if undisturbed, will emerge later in the form of a moth. The worms are killed, however, by placing the cocoons in an oven in order to prevent the moth from breaking the silk thread.

Mr. C. Bradley bought 12 oz. of silkworm eggs, paying $1.95 an ounce. The average number of eggs in an ounce was 3952. Only 50 per cent of the eggs hatched. It was found that the worms hatched from one ounce of eggs ate one ton of mulberry leaves, and each tree bore 125 lb. of leaves. During the feeding period 25 per cent of the worms died. Each worm that developed produced one cocoon. Five hundred cocoons weighed one pound after baking; and 25 per cent of this weight was raw silk, which was sold at $4.50 a pound. Find the number of trees required to feed the worms and the net receipts for the silk.

FOR SPELLING AND DEFINING

undisturbed	mulberry	production	cocoon	emerge
nurseryman	obtained	silkworm	feeding	moth
developed	qualities	receipts	hatched	success

BUSINESS EXERCISES

1. Write to Patnaude Brothers, Paris, France, to get a price on 12 oz. of silkworm eggs.

2. Write to some nurseryman, ordering 500 mulberry trees.

3. Assume that you have taken up the silk industry. Write to a friend, telling of your success.

Lesson 64. Rubber Industry

State some common uses of rubber. Why is the price of rubber liable to advance? Name a country noted for the production of crude rubber. Where is Para? Is there any good substitute in market for rubber?

In the Amazon Valley, the natives tap the caoutchouc tree and secure a fluid from which crude rubber is obtained. This is done by dipping a paddle into the fluid and holding it over smoke.

A native of Brazil tapped 150 trees twice a month for six consecutive months. Each tree yielded 2 qt. of fluid each time it was tapped, and it was found that it required one gallon of the fluid to make 2 lb. of crude rubber. Eighty per cent of the rubber was sold in New York at $1.25 a pound. The remainder of the product was sold in Philadelphia at $1 a pound. The cost for hired help, utensils, transportation, etc., amounted to 40 per cent of the amount received for the product in New York and Philadelphia. Find how much the native actually received for his labor. If he worked twenty-six days each month, how much did he get a day?

FOR SPELLING AND DEFINING

transportation	Philadelphia	actually	utensils	liable
caoutchouc	consecutive	advance	native	crude
remainder	production	product	paddle	fluid

BUSINESS EXERCISES

1. Write a letter to the Fisk Rubber Company, Chicopee, Mass., to get a price on 100 lb. of rubber. Sign your own name.
2. Write the probable reply to the above letter.
3. Make out a bill for the above goods.
4. Make out your check to pay the above bill. Use name of local bank.

Lesson 65. Photography

Distinguish between a photograph and a hand painting. Where is Rochester? What railroad passes through Rochester?

A young man earning money to pay his college expenses decided to become an amateur photographer. Accordingly, he bought a "five by seven" camera of the Eastman Kodak Co., Rochester, N.Y., paying $15 for the camera and $2.50 for a tripod. The following supplies also were bought of the same company: 2 doz. Solio paper at 25¢ a dozen; 10 doz. Velox paper at 35¢ a dozen; 3 printing frames at 35¢ each; one pound of "Hypo" at 20¢; 6 developers at 50¢ a dozen; 3 trays at 20¢ each; 10 doz. mounts at 20¢ a dozen; one jar of paste at 15¢; one red light at 75¢; one bottle of toning solution at 30¢; one bottle of bromide at 15¢; one dozen dry plates at 60¢.

With the above outfit 8 doz. pictures were made and sold at 25¢ apiece. It was found that for this lot of pictures the actual cost for materials used was $6.72. Find the net profit on a single picture, counting only supplies actually used. At this rate, how many pictures would it be necessary to make each day in order to make a weekly wage of $16.20? What did the outfit cost?

FOR SPELLING AND DEFINING

distinguish	material	amateur	camera	tripod
developers	solution	bromide	pictures	actual
photograph	necessary	earning	Rochester	single

BUSINESS EXERCISES

1. Make out a bill for the articles in the outfit.
2. Write a letter to the Eastman Company, ordering supplies to the amount of $25.
3. Write your check to pay the bill.

Lesson 66. Dentistry

Name different ways of replacing teeth. Name different kinds of tooth filling. State methods for preventing pain in extracting teeth. Discuss the importance of keeping the teeth clean. How may we keep our teeth clean? State different ways of injuring the teeth.

A local dentist hired a suite of rooms for carrying on his business, paying $100 a month as rent. An office girl was employed at a cost of $12 a week. The gas bill amounted to 50¢ a week, and the cost for electricity was double that for gas. The average cost per week for chemicals, gold, silver, and incidentals was $20. The dentist paid $8 a week for his board, and spent $4 a week for amusement, etc. His clothing for the year averaged $10 a month.

The average amount of work done per day (312 days) was one gold crown, eight teeth filled, and six teeth extracted. The average prices were as follows: crowns, $5 each; fillings, $2 each; extracting, 50¢ a tooth.

From the above data, find the dentist's net profits for a year.

FOR SPELLING AND DEFINING

crowns	dentistry	preventing	extracting	importance
replacing	employed	chemicals	electricity	satisfactory
suite	methods	concerning	incidentals	amusement

BUSINESS EXERCISES

1. Write a letter to a local dentist to make a date for having a tooth filled.

2. Assume that you had a tooth crowned that was not satisfactory. Write to the dentist concerning the matter.

3. Assume that you had two teeth crowned and two filled. Make out the bill as you would receive it from a local dentist.

Lesson 67. The Doctor

Discuss the advantages of an automobile for a doctor's use. Why is horse hire necessary for a doctor? State the advantages of a telephone in a doctor's office. Name several doctors. Distinguish between "office call" and "local call."

A village doctor had the following expenses to pay during the year: board, $8 a week; office rent, $10 a month; telephone, $1.50 a month; one second-hand automobile, $400; 250 gal. of gasoline at 22¢ a gallon; 32 gal. of oil at 35¢ a gallon; tires, $30; repairs, $40; horse hire, $60; medicine, $5 a week; clothing, $8 a month; incidentals, $2 a week.

The charge for office calls is 50¢; and for local calls, $1. The charge for out-of-town calls is $1.50. The physician averaged thirty out-of-town calls and ten local calls a week. The office calls averaged four a day each day in the week. Find the doctor's financial standing at the end of the year, assuming that he had no money at the outset.

FOR SPELLING AND DEFINING

medicine	expenses	telephone	village	consecutive
distinguish	financial	standing	local	automobile
gasoline	assuming	seriously	repairs	recommending
services	attended	several	outset	advantage

BUSINESS EXERCISES

1. Write the words you would use in calling a doctor by telephone for some one seriously ill. Use local names.

2. Mr. Robert Pratt, living out of town, was attended by a local doctor every day for two consecutive weeks. Make out the bill, supplying the doctor's name.

3. Write a check to pay such a bill.

4. Assume that a certain doctor has attended you. Write to a friend, recommending the services of this doctor.

Lesson 68. The Musician

Name several different kinds of musical instruments. Name three you consider most popular. Distinguish between brass band and orchestra. Name special occasions where instrumental music is in demand.

A musician has a regular appointment to play every Friday night, for which he receives $3 an evening. He also plays every Sunday at a church, for which he receives $2 each time. The outside work averages three nights a week, for which he receives $3 a night. He gives two violin lessons a day, four days a week, for which he receives $1 a lesson.

The cost for music, strings, and resin averages $1 a week. His other weekly expenses average as follows: for board, $7; for clothes, $2; for carfare, 30¢; for incidentals, $1.70. He takes one lesson a week, paying $1 a lesson. Find how much he should save from his earnings during a year.

FOR SPELLING AND DEFINING

advertise	special	consider	popular	distinguish
occasions	violin	decision	earnings	instrumental
orchestra	resin	account	attended	appointment
musical	clothes	demand	regular	instruments

BUSINESS EXERCISES

1. Assume that you are a music teacher. Advertise for pupils, stating the price per lesson.

2. Write a letter to a friend, telling him of your decision to study music.

3. Write a reply to the above letter. Write the address as it should appear on the envelope.

4. Write an account of some musical entertainment you have attended.

Lesson 69. Value of a School Day

About what is the average weekly wage of the ordinary uneducated man? Is learning a trade part of an education? Does the uneducated man often lead an easy life? Does it pay to try to be educated? Can any boy get an education if he so determines? What is a diploma?

A boy graduating from a grammar school at the age of fourteen is undecided whether to go through high school and college. He realizes it will take him four years of 38 weeks (180 actual school days a year) to complete the high school course; and it will cost him $5 a week for board while in school. He can earn his clothes for the year during vacations. Also, it will cost him $500 a year for four years of 180 days each to complete a college course. He assumes, therefore, that he will be ready for work at the age of twenty-two, and will doubtless be able to work until he is sixty-two years of age, at an average salary of $1600 a year. On the other hand, if he leaves school at the age of fourteen, he will expect to work until he is sixty-two years of age at an average weekly wage of $20, allowing two weeks for vacation each year. From the above estimation, find which is the better proposition, and also the value of a single school day in dollars and cents.[1]

FOR SPELLING AND DEFINING

graduating	ordinary	trade	education	diploma
proposition	college	actual	complete	decision
estimation	doubtless	exact	vacations	wage

BUSINESS EXERCISES

1. Write about one hundred words on the value of an education.
2. Write to a friend, telling him of your plans to go through college. State reasons for your decision.

[1] The figures are in no way arbitrary, but fairly exact for most cases

Lesson 70. School Woodworking

What is meant by "manual training in schools"? What are some of its advantages? Name different kinds. What kind do you like best and why?

A certain public school had a debt of $30 remaining from the purchase of a radioptican outfit. Twenty boys of the school manual training class proposed to cancel the debt by making taborets and selling them at $1.65 each. Accordingly, the scheme was carried out. The material was paid for from the money received for the goods. The stock used was chestnut lumber 1 in. thick, which cost $40 a thousand feet. The parts necessary for each taboret were as follows: four legs, each 18″ long and $2\frac{1}{2}$″ wide; four cross-members, each 8″ long and 2″ wide; one top 12″ square; allowance for waste on each taboret, $\frac{11}{36}$ of a square foot. The screws, nails, and stain for each taboret cost 3¢. The average time required for a boy to do the work was as follows: to cut each leg, 15 minutes; to cut each cross-member, 15 minutes; to make two half-lap joints, 1 hour; to cut the top in the form of an octagon, 2 hours; to assemble and stain the taboret, 1 hour.

Find the net profit on a single taboret. How many will be required to pay the debt? If the class work one hour a week, how long will it take to make the required number?

FOR SPELLING AND DEFINING

public	debt	octagon	stock	radioptican
taboret	cancel	scheme	stain	manual

BUSINESS EXERCISES

1. Supply the necessary names and write an order for the lumber needed to build the taborets.

2. Write to some business man whom you know, asking him to buy a taboret.

Lesson 71. School Gardening

What is a school garden? State some advantages of a school garden. What are some of the necessary requirements in order to make the school garden a success? What would you expect to find growing in a school garden?

A class of twenty-four pupils was granted the use of a plot for a school garden. The ground was plowed free of charge. It required 100 lb. of phosphate to fertilize the ground. This cost $30 a ton. The following seeds were sown: two ounces of beets, one quart of peas, three pints of lima beans, two pints of string beans, three packets of lettuce, and two quarts of sweet corn. The yield was as follows: twenty-five bunches of beets from an ounce of seed, three pecks of peas from one pint, one bushel of lima beans from a pint, one bushel of string beans from a pint, fifty heads of lettuce from one packet of seeds, and 150 ears of corn from a pint. The prices received for the vegetables were as follows: beets, 5¢ a bunch; peas, 45¢ a peck; lima beans, 7¢ a quart; string beans, 10¢ a quart; lettuce, six heads for 25¢; corn, 18¢ a dozen. Find the average amount of money received per pupil for the products, assuming that the seeds cost 87¢.

FOR SPELLING AND DEFINING

advantages	requirements	fertilize	granted	necessary
phosphate	description	packets	lettuce	received
vegetables	products	success	yield	ounces

BUSINESS EXERCISES

1. Write a description of a school garden.
2. Make a list of as many vegetables as you can.
3. Make out an order to some local seed dealer for the seeds required to plant the above school garden. State how the seeds are to be delivered.

Lesson 72. Purchase of a School Victrola

In business forms, what is an agreement? Why is an agreement necessary? State some advantages in having a victrola in school. Tell something of importance about Camden, N.J.

A certain public school has bought a victrola of the Victor Talking Machine Company, Camden, N.J. The machine cost $60, and records costing as follows were bought of the company at the same time: three records at $.75 each; three at $1 each; one at $1.25; and one at $1.50. The following was contributed by the different classes and others: grade eight, $7.50; grade seven, $4.50; grade six, $4.25; grade five, $6.50; grade four, $3.75; grade three, $3.75; grade two, $4.50; grade one, $2.45; teachers, principal, and janitors, $11.

It is proposed to give a concert in the school building, charging an admission of 15¢, to pay the balance due on the victrola. Find how many would have to attend in order to cancel the debt. Granting that there are 372 pupils in the school, find the average amount contributed per pupil.

FOR SPELLING AND DEFINING

victrola	machine	records	contributed	concert
janitors	debt	proposed	importance	different
admission	cancel	agreement	necessary	charging
permission	poster	principal	superintendent	specified

BUSINESS EXERCISES

1. Assume that you are a pupil in the above school. Write a letter to the Superintendent of Schools, asking permission to hold a concert in the school building to raise money for the victrola.
2. Write a form for a poster to advertise the concert.
3. Write an order for the victrola and records, as specified above.
4. Write a letter to some friend attending another school. Tell about the plan of purchasing a victrola in your school.

Lesson 73. The Athletic League

Name some officers necessary in an athletic league. State ways of securing funds to defray expenses of such a league. What is a trophy? What is a game schedule? Give your opinion of the value of a school athletic league.

A certain city allows its Public Schools Athletic League $200 a year for the purchase of suits, baseballs, bats, and other equipment. During the year beginning March 1, 1914, an umpire was paid out of this fund at a cost of $40. Baseballs were bought at the rate of three for $1, and 16 doz. were used. Suits and incidentals amounted to $94.

The other expenses, which were borne by the League, were as follows: printing, $23.50; postage, $15; photographs, $16; music, $5; matting, $2.25; tape, $1.92; sundries, $17.18.

One hundred fifty members paid the regular fee of $1 each as dues. Other contributions amounted to $11.25. It was necessary to employ a man to collect dues to the amount of $57 from the members specified above. A commission of 20 per cent was allowed for collecting. At the opening of the year, there was a balance of $19.33 in the treasury. Find the financial standing of the League at the close of the year.

FOR SPELLING AND DEFINING

sundries	dues	contributions	commission	treasury
trophy	funds	photographs	equipment	schedule
athletic	defray	collecting	umpire	league

BUSINESS EXERCISES

1. Assume that there are five ball teams in a league. Number the teams and make a schedule, so that each team will play every other team in the league once.

2. Write to some business man, soliciting a baseball trophy.

3. Write to the manager of some baseball team to arrange a date for a game.

Lesson 74. Elson Picture Exhibition

Give your opinion of the value of pictures in a schoolroom. Discuss the matter of the cost of good pictures. Name one noted picture often seen in schoolrooms.

The Elson Art Company, Belmont, Mass., arranged with a certain public school to have a picture exhibition in the school building, the company agreeing to furnish the pictures to exhibit, providing the school would guarantee to buy pictures of them to the amount of $50. Accordingly, the school made the necessary arrangements. Twelve hundred tickets were disposed of, and of this number 2 per cent were complimentary. The others were sold at 15¢ each. At the refreshment counter, the amount taken in was $80.60, of which 50 per cent was clear profit. A special entertainment was prepared. The admission was 10¢, and 212 tickets were sold. There was a net profit of $2.80 on the sale of catalogues. The expenses incurred were $8.25 for transportation and $1.25 for incidentals. Assuming that the State Educational Department will duplicate any amount not exceeding $100 spent for pictures, find the total amount this school will be able to expend for this purpose. If there are fifteen rooms in the building, how much should each room be able to spend?

FOR SPELLING AND DEFINING

refreshment	exhibition	opinion	complimentary	picture
arrangements	necessary	disposed	transportation	expend
catalogues	admission	duplicate	entertainment	public

BUSINESS EXERCISES

1. Write to the Elson Company, to arrange for an exhibition.
2. Assuming that you are a pupil of the above school, write to a friend, telling of the success of the exhibition.
3. Write a newspaper article giving the date of the exhibition.

Lesson 75. Securing a School Position

What is a Teachers' Agency? What is an Employment Bureau? Where is Dunkirk? Where is Chicago? Tell something of its importance. Where is Harvard University?

Mr. Frank Childs, Erie, Pa., a graduate of Harvard University, sought to secure a position through the Yates-Fisher Teachers' Agency, Chicago, Ill. Mr. Childs paid the agency $2 as registration fee, and agreed to pay the agency 5 per cent on the first year's salary if elected to a position through the Agency. Accordingly, he received a call from Supt. N. L. Engelhardt, Dunkirk, N.Y., to act as principal of the High School at a salary of $1800 a year. He accepted the position.

School opened the second Monday in September. The school year consisted of 38 weeks. Mr. Childs paid $7 a week for his board while in school. Carfare amounted to $20 for the year. Laundry expenses were 75¢ a week, and amusements averaged $1 a week. He paid $20 for books during the term, and incidentals amounted to $25 for the year. What amount of money should the man have had at the close of the school year, provided he had $50 when he began school?

FOR SPELLING AND DEFINING

agency	position	bureau	university	registration
salary	provided	elected	amusement	commission
fee	acceptance	services	employment	consisting

BUSINESS EXERCISES

1. Write the letter of acceptance to Superintendent Engelhardt.
2. Write a letter, thanking the Agency for its services.
3. Make out a ninety-day note in favor of the Agency, in settlement for the commission.
4. Write a telegram notifying Superintendent Engelhardt when to expect the new principal to arrive to begin work.

Lesson 76. School Financing

If accommodations are provided in a school for 325 pupils, will it cost any less per day if 25 pupils are absent? If the estimated cost per capita each day were 20¢, estimate the loss in an absence of 25 pupils for a single day. How is absence wasteful? What is a "teachers' pension fund"?

In a certain school registering 329 pupils, there are 13 teachers, a principal, and 2 janitors. The salaries paid per month are as follows: teachers, \$70; principal, \$160; one janitor at \$70 and one at \$60. The other monthly expenses average as follows: for gas, \$3; 15 tons of coal at \$6 a ton; plumbing, ten hours at 40¢ an hour; books, \$10; electricity, \$3; carpenter work, \$3; paper, pencils, and other incidentals, \$3. From the foregoing data, find the average cost per year of ten months, for each pupil. Counting 182 school days per year, find the average cost per day for each pupil. Counting 12 classes, find the average number of pupils in each class. Find the average cost per class for the year. Find the average cost per class for one day.

FOR SPELLING AND DEFINING

approximate	provided	estimated	wasteful	plumbing
registering	janitors	deducting	salaries	absence
accommodations	article	attendance	pension	principal

BUSINESS EXERCISES

1. Write a newspaper article of about one hundred words on the importance of school attendance.

2. Make out a monthly pay roll for the principal and teachers for the above school, deducting \$1.20 from the principal's salary and one cent on a dollar from the teachers' salaries, for the pension fund.

3. Supply the necessary names and write an excuse for absence, from a parent to a teacher.

Lesson 77. College Financing

Name some noted colleges. Where is New Haven? On what railroad? What is meant by tuition? About how long is a college year? Discuss the advantages of having a college education. State some educational requirement for college entrance.

A young man having $957 in the Albany Savings Bank, Albany, N.Y., decided to enter Yale University, New Haven, Conn., the second Monday in September next. He planned to get some work in order that he might earn part of his expenses while in school. Accordingly, he engaged to act as a waiter in a restaurant, receiving 50¢ a day for the entire school year of 38 weeks. His expenses are as follows each year: carfare, including a visit home during vacation, $20; tuition, $100; books, $20; laundry, 50¢ a week; incidentals, $1 a week. If he attends college four years at this rate, paying $4 a week for board and spending $68 for graduation, what will be his financial standing after completing the college course?

FOR SPELLING AND DEFINING

college	tuition	advantages	requirement	entrance
decides	entire	restaurant	expenses	including
vacation	laundry	graduation	financial	standing
university	noted	success	educational	possible

BUSINESS EXERCISES

1. Write to Dr. A. T. Hadley, President of Yale University, telling him you intend to enter college. Make inquiry about the cost of tuition and a possible chance to get work.

2. Assume that you are in college. Write to a friend in Scranton, Pa., telling him of your success in college work.

3. Write to the Savings Bank, asking for $20, to be sent to you at once.

Lesson 78. Church Financing

Name several churches in your town or city. How are churches supported? What is a congregation? What is a parish? What is a rectory?

A certain church has a membership of 150 people. The preacher receives a salary of $1200 a year. It requires twelve tons of coal a year to heat the church, and the coal costs $7 a ton. Gas bills average $4 a month. The janitor receives $200 a year, and an organist receives $75. The church is valued at $10,000, and is insured at the rate of 50¢ a hundred per year. Incidentals amount to $100 a year.

One fifteenth of the members pay $50 each during the year. The other yearly subscriptions are as follows: 20 members at $25 each; 40 members at $5 each; other members averaging $1 each; collections averaging $4 a Sunday. The income from suppers and entertainments amounts to $300 for the year. Allowing a balance of $25 in the treasury at the opening of the year, find the financial standing of the church at the close of the year.

FOR SPELLING AND DEFINING

congregation	organist	standing	janitor	insured
subscriptions	several	rectory	salary	valued
membership	treasury	collections	balance	parish
entertainments	financial	supported	affair	article

BUSINESS EXERCISES

1. Write a notice for publication, advertising a supper to be held in a local church.

2. Assume that the supper held in the above church was a success. Write a short article concerning the same, for publication.

3. Assume that you have attended some church entertainment or supper. Write to a friend, telling about the affair.

Lesson 79. Barn Building

Mr. Dunham proposes to build a barn 30 ft. wide and 40 ft. long with posts 24 ft. high. He could get it built by a contractor for $1200, but decides to buy his own material and hire carpenters to do the work. He buys the following timber, delivered, for the frame at $25 per thousand:

Width × thickness ÷ 12 gives board feet to running feet. Multiply by length to get total.

4 beams,	8″ × 10″ by 30′	4 sills	6 × 8 by 30
4 plates	6 × 6 by 40	42 floor timbers	4 × 6 by 15
8 posts	8 × 8 by 24	40 " "	3 × 4 by 20
4 "	8 × 8 by 15	44 " "	4 × 6 by 14
16 girts	6 × 6 by 15	80 studding	2 × 4 by 21
8 "	6 × 6 by 14	20 "	2 × 4 by 15
8 posts	6 × 6 by 10	500 ft. "two-by-fours" for braces	
4 sills	6 × 8 by 40		

The following is bought at $30 a thousand for floors, doors, cornice, etc.: 3000 ft. of plank for floors, 3100 ft. of pine boards, 1840 ft. of hemlock. Also, 3300 ft. of novelty siding is bought at $35 per thousand. It requires 17 squares of roofing at $5 a square. Nails, hinges, and bolts cost $15; labor, $300; windows, $8; paint, $10; painter's wages, $24.

1. Find amount of lumber for frame, and cost at given rate.
2. Find amount of lumber for floors, doors, and cornice, and cost.
3. Find the cost for novelty siding.
4. Find the total cost for lumber.
5. Find the total number of feet of lumber in the barn.
6. Find the total cost for building the barn.
7. Does Mr. Dunham gain or lose by not letting the job out by contract, and how much?

FOR SPELLING AND DEFINING

Schenectady	proposes	contractor	decides	material
following	delivered	carpenters	cornice	timber

Lesson 80. House Building

Name the most common kinds of wood used in building houses. What is finished flooring? What is the purpose of deadening felt? Name some hardware needed in building a house.

From the data given below, find the cost of a building lot and a regular two-story house 30 ft. long and 18 ft. wide. The building lot, which is 100 ft. long and 50 ft. wide, cost $600. The construction of the cellar, foundation, and chimney was let by contract at a cost of $700. The lumber required was as follows: 7860 ft. of timber at $28.50 a thousand; 4680 ft. of inch-sheathing at $24 a thousand; 2863 ft. of flooring at $25 a thousand; 3480 ft. of bevel siding at $32 a thousand; 11,000 shingles at $4.50 a thousand; 2900 ft. of finished flooring at $52 a thousand; and material for doors and windows, $300. It required 12 rolls of building paper at $.60 a roll and 6 rolls of deadening paper at $2.90 a roll. There were 593 sq. yd. to be lathed and plastered, and this cost 55¢ a square yard. The hardware cost $78.82. Painting cost $376; plumbing, $292; heating, $196; and wiring, $84. The cost for labor was as follows: carpenters, 1820 hr. at 45¢ an hour; a foreman, 340 hr. at 60¢ an hour; common laborers, 324 hr. at 20¢ an hour.

FOR SPELLING AND DEFINING

regular cellar hardware shingles deadening timber sheathing siding bevel plastered foreman carpenter lathed plumbing

BUSINESS EXERCISES

1. Supply ordinary names and make out a bill for the lumber.
2. Using your own name, write a due bill, payable in cash, in favor of John White, for wiring the house.
3. Advertise for bids on a contract for the cellar, foundation, and chimney as specified above.

Lesson 81. Concrete and Brick Work

Why is it necessary to start a foundation so deep in the ground? Why is concrete better than brick for footing? Tell something of the size, shape, and composition of a brick.

Mr. George Himes, Pike, N.H., built a two-story house 18 ft. wide and 30 ft. long, with a cellar 9 ft. deep. He let the contract to construct the cellar and foundation to Mr. Samuel File, Fairlee, Vt., for $700. It cost the contractor 70¢ a cubic yard for excavating, counting only the actual number of yards displaced for the cellar. The contract called for a concrete footing 18 in. wide and one foot high, beneath the entire brick wall (perimeter 96 ft.). This cost 25¢ a cubic foot. The brick wall was 9 ft. high and 18 in. thick. No allowance is made for corners or openings. The bricks cost $6.50 a thousand, and a cubic foot requires 22 bricks. The chimney required 3478 bricks. A mason was paid $8 a thousand for laying the bricks. The cellar bottom was to be cemented 4 in. in thickness. This cost 8¢ a square foot. What did the contractor realize on the venture?

FOR SPELLING AND DEFINING

cellar	contract	concrete	complete	foundation
actual	displaced	venture	perimeter	excavating
chimney	mason	Canada	allowance	construction

BUSINESS EXERCISES

1. Advertise for a mason to lay the bricks in the above construction.

2. Using the name of a local dealer, make out a bill for the bricks.

3. Write an answer to the above advertisement.

4. Assume that you are having the house built. Write to a friend in Toronto, Canada, telling him of your plans.

Lesson 82. Steel Roofing

Name several kinds of roofing. Name two qualities of a good roof. Name a city noted for the manufacture of steel roofing. Where is Canton? Name a railroad leading in that direction. What is the meaning of the expression "freight prepaid"? Give table for square measure. How much is a square of roofing?

Mr. J. C. Bell, a roofer, has done the following business since April 8: On April 8, he bought of The Berger Manufacturing Company, Canton, Ohio, 100 squares of galvanized steel at $3 a square; 25 squares of galvanized steel shingles at $5 a square; 500 linear feet of eave trough at 4¢ a foot; and 50 squares of painted steel at $2.10 a square.

The price to the consumer is as follows: galvanized steel, $5 a square; shingles, $6.50 a square; painted steel, $3.50 a square; eave trough, 10¢ a linear foot. The dealer employs a man to help lay the roofing, paying him 40¢ a square for roofing and one cent a foot for hanging eave trough.

Find the dealer's net profits from the sale of the above goods as specified. Find the helper's total wages.

FOR SPELLING AND DEFINING

manufacture	roofing	qualities	shingles	direction
galvanized	prepaid	several	trough	consumer
expression	linear	dealer	eave	employee

BUSINESS EXERCISES

1. Make out the bill for the above stock of roofing.

2. Write a telegram to the roofing company, asking them to send a tracer after the goods ordered April 8.

3. Make out the account for the employee's labor, including services for all orders filled.

4. Draw up a check to pay the employee.

5. Assume that you want a roof put on your house. Write to the dealer, ordering five squares of roofing.

Lesson 83. Plumbing

State some objections to following the plumber's trade. What advantages does the trade offer? How does a plumber usually learn his trade? Discuss the value of an education to a plumber. What is a contract? State reasons for written contracts.

Mr. James Bulmer contracted to do the plumbing in a two-story dwelling house for $575. In doing the work, expenses were incurred for the following: 12 ft. of excavating at 50¢ a linear foot; 85 ft. of five-inch soil pipe at 40¢ a foot; 10 ft. of six-inch iron pipe at 15¢ a foot; branches, bends, traps, etc., $20; 150 lb. of lead at 5¢ a pound; 15 lb. of oakum at 10¢ a pound; 20 lb. of solder at 30¢ a pound; 5 gal. of gasoline at 25¢ a gallon; 200 ft. of three-quarter inch pipe at 8¢ a foot; 50 ft. of half-inch pipe at 7¢ a foot; fittings, $15; 350 ft. of gas pipe at 20¢ a foot; lead pipe, $22.40; incidentals, such as hangers, stops, cement, etc., $10.35; 2 water tanks at $15 each; 2 sinks at $12 each; 2 sets of wash trays at $13.50 a set; 2 sets of bathroom combinations at $38 a set; 2 bath tubs with fixtures at $30 each; one laborer four days at $2 a day; labor for plumbers, 200 hr. at 50¢ an hour; cartage, $5. Find the contractor's profit, assuming that he made an additional profit of 10 per cent on all supplies and labor.

FOR SPELLING AND DEFINING

objections	plumber	trade	education	solder
dwelling	incurred	oakum	excavating	quality
cement	cartage	profit	settlement	secure

BUSINESS EXERCISES

1. Supplying common names, write a letter to secure the contract for doing the plumbing in a two-story house.

2. Assume that you are a plumber having worked two hundred hours for the contractor. Write to him, asking for a settlement.

Lesson 84. House Lighting

Name several different methods of lighting houses. Which kind would you prefer and why? Mention some dangers in connection with the use of the different systems of lighting.

Mr. George Wilson, Erie, Pa., let the contract to Mr. Fred Carter of the same city, to install a gasoline lighting plant on the first floor of his house, for $50. The contract called for three large mantle burners complete, with all pipes and tank ready for use.

Accordingly, Mr. Carter ordered the following goods from the Pitner Company, Sterling, Ill.: 3 mantle burners at $7.46 each; one gasoline tank with pressure gauge at $12; 37 ft. of hollow wire at 5¢ a foot; pipe nuts, 48¢; connections, $1.48; one pump at $2.70; one dozen mantles at 10¢ each; lighters and cleaners, 60¢; incidentals, 50¢. The freight was $1.20. Mr. Carter received a trade discount of 45 per cent on the list price of the goods and an additional discount of 5 per cent for cash. He employed a helper 16 hr. at 40¢ an hour.

From the above data, find how much Mr. Carter realized for installing the system.

FOR SPELLING AND DEFINING

lighting	prefer	systems	install	acknowledgment
burners	complete	pressure	gauge	connections
additional	discount	mantle	trade	recommending

BUSINESS EXERCISES

1. Write to the Pitner Company, ordering the parts necessary for the lighting system mentioned above.
2. Write an acknowledgment of the order.
3. Assuming that you had the lighting system installed, write a a friend, recommending the system.

Lesson 85. House Heating

Name several different methods of heating houses. What different kinds of fuel are used? How would location affect the heating of a house?

Having built a house, a man desired to have his residence equipped with a warm air heating system. Accordingly, he engaged a furnace company to install the plant. The charges made by the company were as follows: for one furnace and casing, \$72.25; one register face, \$3.60; 5 registers at \$1.08 each; 3 registers at \$.90 each; 8 warm air dampers at \$.13 each; 28 ft. of tin pipe at \$.13 a foot; 22 ft. of tin pipe at \$.11½ a foot; 10 elbows at \$.24 each; 33 ft. of tin pipe at \$.11 a foot; 5 register boxes at \$.30 each; one cold air collar, \$1.50; angles, collars, and thimbles, \$5.45; asbestos, \$2.50; freight, \$2.25; labor, \$15. In addition to this, the company charged 33⅓ per cent on the above items for overhead expenses and profit. The owner paid the bill with an allowance of 5 per cent off for cash.

From the above data, find how much the heating system cost.

FOR SPELLING AND DEFINING

heating	affect	location	methods	residence
equipped	install	furnace	casing	registers
dampers	angles	asbestos	allowance	thimbles

BUSINESS EXERCISES

1. Assuming that you have a two-family house to be heated, write to some furnace company for an estimate of the cost for the equipment.

2. Write a reply to the above letter, giving the desired information.

3. Write a letter ordering the heating system installed.

Lesson 86. Papering

Why do people have the walls of the house papered? What other ways are there to finish the walls?

A man wishing to have his house papered decided to buy his paper and hire a paperhanger to do the work. The house contains one parlor 18 ft. wide and 21 ft. long, a living room 18 ft. square, a kitchen 15 ft. wide and 18 ft. long, and three bedrooms each 12 ft. wide and 14 ft. long. (Figure three bedrooms together.) The cost per single roll for paper was as follows: for the parlor, 40¢; the living room, 35¢; the kitchen, 30¢; the bedrooms, 25¢. Border for the parlor cost 20¢ a linear yard; for the living room, 15¢ a yard; for the kitchen, 10¢ a yard; and for the bedrooms, 15¢ a yard. The paper for the overhead walls cost the same as that for the sides, respectively. The "union" price for hanging the paper was twenty-two and a half cents a roll and one cent a linear yard for the border. The height of all walls is 8 ft. from baseboard to ceiling. Consider a single roll as containing a strip 24 ft. long and 18 in. wide. No partial rolls can be bought. (Find the area of the surface to be covered, and divide by the number of square feet in a roll.) Assuming that the openings for doors and windows will make up the loss for matching, estimate the cost for papering the house.

FOR SPELLING AND DEFINING

papering	matching	finish	paperhanger	parlor	kitchen
border	estimate	linear	baseboard	ceiling	partial

BUSINESS EXERCISES

1. Write to some paper dealer to get samples of paper with prices. Give an idea of the amount needed.
2. Make out a bill to yourself for the paper needed.
3. Write to some paper hanger to engage him to paper the house.

Lesson 87. House Furnishing

Name several of the most important pieces of furniture in a house. State the advantages of a vacuum cleaner.

Mr. E. Larkin, having built a new house, decided to begin housekeeping. Accordingly, he bought the following goods: one parlor suite at $75; one rug at $24; four pictures at $4.50 each; one veneered center table at $12; a piano at $275; a music cabinet at $14; three pairs of curtains at $8 a pair; one couch at $40; three rocking-chairs at $5.50 each; three chairs at $3 each; one rug at $16.50; two pairs of curtains at $6.50 a pair; pictures, $20; one bookcase, $10.50; one library table, $14; three brass beds at $12 each; three sets of springs at $4.50 a set; three mattresses at $4 each; bedding and pictures, $100; three dressers at $17 each; three rugs at $8 each; three chairs at $2.50 each; three pairs of curtains at $3.50 each; hall furnishings, $12.50; one dining-room table, $15; one sideboard, $16; curtains, $6; four chairs at $2.50 each; dishes and silverware, $100; one gas range, $16.50; one table, $4; linoleum, $20; curtains, $4; a cookstove, $40; four chairs at $1.50 each; cooking utensils, $30; provisions, $20; linen, $25; clothing, fuel, etc., $200. The goods were insured at $1200 for three years, the rate being $1.30 a hundred. If the house burned, what would be the man's loss if he received full value on the policy?

FOR SPELLING AND DEFINING

furniture	provision	modern	vacuum	library	fuel
veneered	linoleum	curtains	utensils	cabinet	policy

BUSINESS EXERCISES

1. Write an order to a local furniture store for the parlor goods.
2. Make out a bill for the parlor goods.
3. Make out the order for the necessary provisions.

Lesson 88. Landscape Gardening

Mention ways in which the grounds about a house may be made attractive. Name different kinds of trees and plants used for ornamental purposes. Recite the table for cubic measure.

After having built a house, a man found it would be necessary to expend considerable money to improve the surrounding grounds. Accordingly, he employed a landscape gardener, at a cost of $5 a day, to superintend the improvements.

The plot of ground included a depression 40 ft. long and 18 ft. wide, with an average depth of 4 ft. This was filled at a cost of 75¢ a cu. yd. A man was employed with his team, fourteen days, to do the grading. He received $5 a day. The cost for fertilizer was $15. The cost for shrubbery was as follows: 6 Norway spruce trees at $1.25 each; 500 honey locust hedge plants at $2 a hundred; 8 catalpa trees at $.40 each; rose bushes, hydrangeas, and vines, $24. The grounds included one cement walk 100 ft. long and 3 ft. wide, and another walk 50 ft. long and 4 ft. wide. The walks cost 9¢ a square foot. The lawn required three pecks of grass seed, which cost $8 a bushel. The cost for extra laborers was $40. The landscape gardener worked nine days. Find the cost for improving the grounds.

FOR SPELLING AND DEFINING

attractive	ornamental	surrounding	gardener	locust
depression	shrubbery	superintend	hedge	grading
hydrangea	landscape	description	catalpa	cement

BUSINESS EXERCISES

1. Supply necessary names and make out a bill for the shrubbery.

2. Write a short description of some well-kept lawn you have

Lesson 89. Living Expenses

Is it always economical to have groceries charged? Give reasons. Is it wise to buy at all times where goods are cheapest? Why? Give some requirements of a chauffeur.

Mr. Harold Smith, a chauffeur, receives $120 a month. There are four members in his family. His clothing costs him, on the average, $6 a month; and he pays $250 a year for clothing used by other members of the family. Twenty dollars a month is paid for rent. He burns eight tons of coal costing $7 a ton, and one and a half cords of wood costing $6 a cord, during the year. The cost for amusements amounts to $1 a week. Meat bills average $3 a week, and the bill for groceries is twice the amount paid for meat. Mr. Smith bought 6 bbl. of potatoes at $2.50 a barrel and 3 bbl. of apples at $3.50 a barrel. Incidentals amounted to $100 for the year.

Granting that the man had no money at the outset, find his financial standing at the end of the year.

FOR SPELLING AND DEFINING

rent	receives	members	clothing	chauffeur
cords	amusements	groceries	potatoes	financial
outset	requirements	economical	charged	merchant

BUSINESS EXERCISES

1. Make out an order to some local grocer for groceries to the amount of six dollars. Select articles most commonly used.

2. Using the name of some local merchant, advertise for a clerk. State the wages that will be paid.

3. Assume that you are looking for a position. Answer the above advertisement.

4. Write a letter to a friend, telling of your success in securing a position as clerk.

Lesson 90. The Banquet

What is a club? Name one. Name some different organizations that have banquets. State reasons for holding banquets.

A certain club consisting of 50 members wished to hold a banquet. It was proposed to hire a caterer to serve, paying him 75¢ per capita. The following provision was required: 5 cans of tomatoes, 20 qt. of milk, $5\frac{1}{2}$ lb. of flour, $2\frac{2}{3}$ lb. of butter, 5 qt. of coarse salt, 12 loaves of bread, 3 bunches of celery, one quart of olives, 3 lb. of halibut, 27 eggs, one quarter of a pound of beef fat, 2 yeast cakes, 13 lb. of sugar, 8 lb. of veal chops, one half peck of potatoes, 5 cans of peas, 2 doz. lemons, a tub of ice, 2 lb. of almond paste, one pound of coffee; gas, 25¢; labor, fifteen hours at 25¢ an hour; pepper, salt, etc., 5¢. The current prices paid for the articles were: for tomatoes, 12¢ a can; milk, 8¢ a quart; flour, 4¢ a pound; butter, 36¢ a pound; salt, 4¢ a quart; bread, 5¢ a loaf; celery, 10¢ a bunch; olives, 30¢ a quart; halibut, 10¢ a pound; eggs, 45¢ a dozen; beef fat, 25¢ a pound; yeast cakes, 2¢ each; sugar, 5¢ a pound; veal, 25¢ a pound; potatoes, 30¢ a peck; peas, 18¢ a can; lemons, 30¢ a dozen; ice, 15¢ a tub; almond paste, 25¢ a pound; coffee, 30¢ a pound. Find the caterer's net profits. If the members had managed the affair themselves, what would have been the cost per capita?

FOR SPELLING AND DEFINING

almond	capita	banquet	proposed	caterer	yeast
potatoes	halibut	provision	tomatoes	celery	olives

BUSINESS EXERCISES

1. From the above problem, write out a menu.
2. Write a notice of the banquet, to be sent to the members.
3. Write a short account of such a banquet, for a newspaper.
4. Write an order for provisions to the amount of $10.

Lesson 91. The Reception

What is a reception? What is a banquet? What is an entertainment? What is an invitation? What is an acceptance?

The Teachers' Association of a certain city held a reception at one of the school buildings of the city. The expenses incurred were: for ice-cream, 70 bricks at 40¢ each; candy, 10 lb. at 30¢ a pound; cake, $9.50; punch, $12; music, four pieces at $3.50 each and a leader at $4; flowers and palms, $5; services for three janitors, $5; printing invitations and postage, $2.80; table decorations, $2.95; chairs and tables, $8.25; printing a song, $1.50.

Assuming that there were 216 members in the Association and that three fourths of the number paid the assessment of 50¢ per capita, find how much money must be drawn from the treasury of the Association in order to pay the bills in full. How many teachers should have paid in order to have covered expenses without drawing money from the treasury? If the assessment had been 60¢ per capita for those who paid, what would have been the result?

FOR SPELLING AND DEFINING

reception	banquet	janitors	invitation	acceptance
association	incurred	punch	assessment	entertainment
decorations	postage	palms	treasury	secretary

BUSINESS EXERCISES

1. Supplying a name for secretary of the Association, write an invitation to the mayor of your city, inviting him to attend the reception.

2. Assume that you were a teacher who attended the reception. Write to a friend, telling about the affair.

3. Prepare a short article for the newspaper, telling of a reception held at one of the schools of your city.

Lesson 92. Motoring

Name some large cities along the way between Boston and Chicago. Name any mountains a party would pass over in making the trip by automobile. About where would a party cross the Hudson River? About where would they stop the second night if they traveled ninety miles a day?

Mr. Henry Dunham left Boston, Mass., Tuesday morning, July 1, with his automobile, en route for Chicago, Ill., a distance of 1034 miles. He took his family of four grown persons besides himself. The average distance traveled per day was 94 miles. The gasoline mileage was 11 miles to the gallon. The gasoline cost 20¢ a gallon. One quart of oil was used each day, and this cost 40¢ a gallon. Breakfasts averaged 25¢, dinners 50¢, and suppers 35¢, each, respectively. Lodgings averaged $1 a person per night. Garage bills were $1 a night. Incidentals amounted to $20. (Count expense only on basis of full days.)

From the above data, find the time required to make the trip, the total cost, and the average cost per person. Find the cost of a single carfare at two cents a mile.

FOR SPELLING AND DEFINING

passenger	rates	en route	Chicago	distance
traveled	mileage	gasoline	respectively	lodgings
garage	storage	specified	telegram	reserve

BUSINESS EXERCISES

1. Make out a statement of expenses for supper, lodging, and breakfasts for the entire party.

2. Assume that the party is in Springfield, Mass., July 2. Write a telegram to reserve rooms for five persons for the night at Keeler's Hotel, Albany, N.Y.

3. Assume that you are one of the party. Write to a friend in Boston, telling of your arrival at Chicago.

Lesson 93. Automobile Expenses

Give reasons for licensing automobiles. Name some conditions of roads detrimental to tires. Give the name of some low-priced automobile. Locate Detroit. Name a railroad leading to that city. Name an important fact about Detroit. Locate Cleveland. Tell something of its importance.

Mr. John Adams had $1000 in a local bank (supply name). He bought a Ford automobile, paying $625. The car averaged 20 miles to a gallon of gasoline. He ran the car 8560 miles. Gasoline cost him 21¢ a gallon for the first 250 gal. and 23¢ a gallon for the remainder. The car used one quart of lubricating oil for every 100 miles. This was bought direct of the Zone Oil Company, Cleveland, Ohio. The cost was 28¢ a gallon, delivered. The cost for one tire, bought of the Goodrich Tire Company, Akron, Ohio, was $12 less 10% for cash. The Troy Vulcanizing Company, Troy, N.Y., did work amounting to $14.50. Incidentals came to $68.77. Assuming that the license cost $5 and the man's board cost him $4.50 a week, what should he have had in the bank at the end of twenty weeks, providing he had no income?

FOR SPELLING AND DEFINING

licensing	locate	important	remainder	vulcanizing
conditions	leading	gasoline	mentioned	lubricating
detrimental	local	income	incidentals	Cleveland

BUSINESS EXERCISES

1. Write an order for the tire mentioned above.
2. Make out a bill for the tire.
3. Write the check to pay for the tire.
4. Write a letter to the oil company to find out what the oil will cost.
5. Write the letter as the company would write in reply.

Lesson 94. Insurance

What is life insurance? What is its object? What is a policy? Give the meaning of "endowment policy." What is the premium? What has age to do with the first cost of insurance?

On the first day of the year a man having a family decided to have his life insured. Accordingly, he contracted for a twenty-payment life insurance policy, which cost him $57 a year, payable in advance. According to the terms of the contract, at the end of twenty years he can draw $1000 in cash or have a "paid-up" policy for $2000 carried for life without further expense.

Let us assume that he will draw the $1000 in cash. Find how much more than this amount he will have paid to the company. Allowing 4 per cent simple interest on the respective payments for the time the company had the use of the money, find how much the protection actually cost the man.

FOR SPELLING AND DEFINING

insurance	policy	endowment	premium	decided
contracted	insured	payment	payable	advance
protection	further	expense	company	interest
respective	terms	actually	inform	urging

BUSINESS EXERCISES

1. Write a letter to the Fidelity Mutual Life Insurance Company, Philadelphia, Pa., enclosing the money for a yearly premium on the above policy. Use your own name.

2. Assume that you have a friend who is about to take insurance. Write to some insurance agent to inform him of the fact.

3. Write a letter to some friend urging him to take an insurance policy.

4. Supplying the names, write a check to pay the yearly premium on the above policy.

Lesson 95. Real Estate Dealing

Distinguish between real estate and personal property. What is an insurance policy? Why carry insurance? State the object of drawing money from the bank to buy real estate. Why are taxes necessary? What is an assessor?

A speculator bought a two-family house and lot at a cost of $4000. He had the house insured for $3000, the rate being 1.3 per cent for a term of three years. Taxes amounted to 2.5 per cent annually on the valuation of the property, which was assessed at full purchase value. The man sold the property at the end of three years for 10 per cent more than he paid. He allowed a real estate broker 5 per cent for making the sale.

During the second year the house was repaired, and the following expense was incurred: papering, $80; 14 gal. of paint at $1.50 a gallon and eight days' labor at $3 a day. During the first year the first floor was vacant four months. It was rented the remainder of the time until sold. The rent for the first floor was $18 a month. The second floor was rented the entire three years at $16 a month. Find the result of the speculation.

FOR SPELLING AND DEFINING

distinguish	real	estate	personal	property
insurance	taxes	assessor	speculator	valuation
annually	rate	assessed	broker	repaired
speculation	vacant	incurred	ordinary	purchase

BUSINESS EXERCISES

1. Assume that the two flats mentioned above are to be rented. Using a local name and address, write the advertisement.

2. Using local names, write a check to pay the insurance on the above property.

3. Supplying ordinary names, write receipts for a month's rent.

Lesson 96. Moving Pictures

Discuss the value of moving pictures from an educational standpoint. Under what circumstances might the moving-picture show be objectionable? What has the law to do with the management of moving-picture shows?

In a certain moving-picture house there is a seating capacity for 200 persons. The show is opened at one o'clock in the afternoon and continues until ten o'clock at night. Experience has proved that, on the average, 75 per cent of the seats are occupied while the show is in operation. Moreover, there is an entire change of audience, on the average, every hour. The admission is 5¢, and the house is open six days in the week. The current expenses are as follows: for two ushers, each receiving 10¢ an hour; one ticket agent at 20¢ an hour; paid talent, $1 an hour while the house is open; gas, $3 a week; electricity, $1.50 a week; a film operator, $18 a week; and a manager at 50¢ an hour while the house is open.

If the cost for rent, films, and incidentals is 40 per cent of the amount taken in at the door, find the proprietor's net profits for a week.

FOR SPELLING AND DEFINING

circumstances	ushers	experience	capacity	educational
management	talent	operation	current	continues
objectionable	film	operator	occupied	proprietor

BUSINESS EXERCISES

1. Write a form to insert in a newspaper, advertising some moving-picture show.

2. Assume that the manager of a local moving-picture house wishes to hire a film operator. Write a suitable advertisement for the same.

3. Answer the above advertisement.

Lesson 97. Street Cars

How does an electric car get its power? What is the duty of the conductor? What is the duty of an inspector? How does the traction company get its right to use the streets for a railway? Name different systems of collecting fares. Why does the traction company require the conductor to register the fares?

A certain traction company has a line on which 20 cars each make a round trip every hour from six o'clock in the morning until twelve o'clock at night. The fare is 5¢ each way. The average number of people, exclusive of children who ride free, riding on each car each way is 32. It is estimated that 25 per cent of this number ride on transfers. Assuming that the conductor and the motorman each receive 27¢ an hour, determine how much the cars on this line turn into the company's treasury each day after paying the conductors and motormen.

FOR SPELLING AND DEFINING

electric	power	motorman	conductor	inspector
traction	maintains	service	exclusive	estimated
transfers	determine	treasury	certain	company
conductor	injured	passenger	advised	inadequate

BUSINESS EXERCISES

1. While getting off a car, a passenger was injured. The passenger was advised to sue the company for damages. Write to some lawyer for advice in the matter. Use local names.

2. Assuming that the car service is inadequate on a certain line, write a complaint to that effect to the mayor of your city. Sign your own name.

3. Write a short newspaper article describing a street-car accident.

4. Assume that you found a gold watch while riding on a car. Write a suitable advertisement for the same.

Lesson 98. The Autobus

What is an autobus? What advantage has it over the electric car? What advantage has the electric car over the autobus? What is a company? Name one.

A company was formed to establish an autobus line between two cities 35 miles apart. The plan was to have a bus start from each city at the same time each morning and afternoon. The speed was to be an average of 7 miles an hour, including all stops. Accordingly, two cars were bought of the Packard Automobile Company, Detroit, Mich., the price being $4000 each, delivered. The license cost $5 a car. Two chauffeurs were hired at $18 a week, each. The company employed two conductors, paying them $12 a week, respectively. A business manager was employed at $25 a week. The tire mileage was 5000 miles. The tires cost $60 each. The season began May 15, and the last trip was made October 9. The bus was run every day. The average amount of gas used was 10 gal. one way for each car. One half gallon of oil was used in each car one way. The price for gasoline was 18¢ a gallon, and for oil 30¢. Storage and washing cost $5 a week for each car. Incidentals amounted to $300 for the season. The fare was $2 a round trip or $1.50 one way. The average fares received were equal to 10 round-trip and 10 one-way fares a day for each car. Find the financial standing of the company at the close of the season.

FOR SPELLING AND DEFINING

autobus	chauffeurs	electric	establish	conductors	license
gasoline	employed	storage	manager	statement	mileage

BUSINESS EXERCISES

1. Write a letter ordering the cars. Sign your own name.

ake out a statement of receipts and expenses for July.

Lesson 99. Itinerary

Locate Albany and New York. Tell why they are important. How far is Albany from New York? Describe two routes of travel between the two cities. About how old are these settlements?

Mr. James Hull, Albany, N.Y., granted his son the privilege of spending the Thanskgiving vacation in New York City, agreeing to furnish the money for all reasonable expenses. The New York Central Railroad offered a rate for the round trip equal to the fare one way plus $1. (The regular fare one way is $3.10.) The rate for a sleeper is $1.25 one way. The son left Albany Wednesday night at eleven o'clock and returned the following Saturday evening at six o'clock.

The cost for a room in New York at the Hotel McAlpin was $1.50 a night. Breakfasts were taken at restaurants, at an average cost of 20¢ a meal. Dinners cost 50¢, and suppers, 30¢. The boy spent 30¢ a day carfare on the elevated road or the subway, and 20¢ a day on surface cars. He attended the Hippodrome, taking a $1 seat. Admission to the Metropolitan Museum was 25¢, it being a pay day; and admission to Bronx Park was free, as he went there on a holiday. Incidentals amounted to $2.50. Make out a statement of expenses for the trip, and find the average cost per day.

FOR SPELLING AND DEFINING

expenses important settlement Hippodrome matinée privilege
locate attended reasonable restaurants museum elevated

BUSINESS EXERCISES

1. The son's initials are E. B. H. Make out the check from the father for the expenses. Supply the name of a local bank.

2. Write to a friend, telling of the trip.

3. Write a telegram from the son in New York to the father, stating the time of arrival at Albany.

Lesson 100. The Excursion

What is an excursion? State ways of conducting excursions. Why are excursion rates usually less than regular fares? State some disadvantages in traveling on excursions.

A certain club, wishing to procure some money to pay a debt, decided to conduct an excursion. Accordingly, arrangements were made with a steamboat company, whereby the club might carry out such a proposition. According to the terms of the agreement, the club was to guarantee the steamboat company $200 for the trip. If, however, the profits from the sale of tickets and refreshments amounted to more than $400, the company was to have 50 per cent of the entire profits. The price of tickets for the round trip was $1 for adults and 50¢ for children. The party included 250 adults and 200 children. The privilege of selling refreshments was let to a caterer on a commission basis. The club was to have 40 per cent of the profits from the sale of refreshments. The caterer took in $180 from such sale. His expenses were $40. Find how much the club, the company, and the caterer each realized from the excursion.

FOR SPELLING AND DEFINING

excursion	refreshments	fares	traveling	commission
conduct	arrangements	debt	procure	agreement
guarantee	privilege	basis	included	conducting
caterer	proposition	adults	poster	traveling

BUSINESS EXERCISES

1. Supplying the necessary names, write to a steamboat company for terms on an excursion.
2. Write a reply to the above communication.
3. Write a poster for advertising an excursion.
4. Write a brief account of an excursion that has taken place.

SPECIMENS OF LETTER WRITING AND BUSINESS FORMS

BILL

THOMAS BROWN
NORTH ADAMS, MASS.

May 1, 1914.

SOLD TO Boston & Maine Railroad

1500 Railroad Ties	@ .50	750	00
7000 ft. of Plank	@ 20.00	140	00
		890	00

NOTE

Chicago, Ill., March 2, 1915.

Four months after date, I promise to pay Edward Jones, or bearer, Five Hundred Dollars, for value received.

500\frac{00}{100}$.

James Ellis.

RECEIPT

Burlington, Vt., July 6, 1914.

Received of James Dolan, Twenty Dollars, on account.

Robert Finley.

CHECK

BALTIMORE, MD., June 3, 1914. No. 779

OTTOMAN NATIONAL BANK

PAY TO Stone & Company OR ORDER $ 50$\frac{50}{100}$

Fifty and $\frac{50}{100}$ DOLLARS

C. L. Waters & Co.

A. T. Waters, ATTY.

DUE BILL

Holyoke, Mass., Dec. 1, 1914.

Due John Wager, or order, on demand, Three Hundred Dollars, value received.

300\frac{00}{100}$.

James Thompson.

ORDER FOR MONEY

Omaha, Neb., Oct. 8, 1914.

Mr. George Franklin:

Please pay Joseph Hayes, or order, Twenty Dollars, on account.

Edward James.

ADVERTISEMENT

WANTED.—Experienced Chauffeur. Good salary to the right man. Give references and last place of employment.

Box 123, Times Off

APPLICATION FOR A POSITION

Pittsburgh, Pa., June 4, 1915.

Messrs. Hall & Hartwell,

Columbus, Ohio.

Gentlemen:

I have been informed that you are in need of an office boy. Please consider this an application for the position.

My education consists of a full Grammar School course, and I have had some business experience. I am eighteen years of age.

Thanking you in advance for an early reply, I am,

Yours very truly,

Thomas Ginn.

LETTER OF RECOMMENDATION

Atlanta, Ga., March 15, 1915.

Mr. George Himes,
City.

Dear Sir:

It gives me great pleasure to state that the bearer of this letter, Mr. Walter Miller, who has been in my employ for two years, has done excellent service. His ability and sincerity have never been questioned.

Because of poor health, I have been forced to retire from business. This accounts for the fact that Mr. Miller is without a position at present. You certainly can make no mistake in engaging him as bookkeeper in your office.

Very truly yours,

Martin Armstrong.

BUSINESS LETTER

Raleigh, N.C., Jan. 5, 1915.

Messrs. Cole & Cranston,
Hartford, Conn.

Gentlemen:

We have your letter of the 5th inst., in which you ask for a catalogue of our goods. It gives us great pleasure to comply with your request by forwarding the catalogue to you this day. If you will refer to page 30, you will find listed there the particular goods to which you refer in your last letter.

Trusting that we may have an order from you in the near future, we remain,

Respectfully yours,

BROWN & KIMBALL.
H. L.

H.L./C.

ORDER

Bradford, Vt., May 6, 1915.

Smith & Co.,

Fairlee, Vt.

Gentlemen:

Please send me at once the following articles and charge the same to my account: six boxes of rolled oats, three bushels of potatoes, two pecks of tomatoes, and two dozen ears of corn.

Yours truly,

George Graham.

ACKNOWLEDGMENT OF ORDER

Boston, Mass., Feb. 6, 1915.

Mr. Frank Worthy,

Springfield, Mass.

Dear Sir:

This will acknowledge receipt of your valued order of the 5th inst. The order will receive prompt attention, and the goods will go forward at once.

Thanking you for your continued patronage, we are

Yours very truly,

MASON & DIXON.

Per G.

FRIENDLY LETTER

Racine, Wis.

August 20, 1914.

My dear Cousin,

Nothing could please me more than to learn that you intend to enter college this fall. I am sure you will never regret that you have come to this decision. One can little afford to neglect his education in these days.

We are all well at present, although we have had some sickness in the family during the past few months.

Whenever you find the time, I should be glad to have you make me a visit. I am sure you would enjoy spending a couple of weeks here.

Sincerely yours,

Charles Preston.

FORMAL INVITATION

Mr. Edwin Ray requests the pleasure of Mr. Frank Lape's company at dinner on Thursday, June fifth, at six o'clock.

2149 Fifth Avenue,
June first, 1914.

ACCEPTANCE

Mr. Frank Lape accepts with pleasure the kind invitation of Mr. Edwin Ray to dinner, June fifth.

180 Congress Street,
June first, 1914.

TELEGRAM

POSTAL TELEGRAPH – COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT

COUNTER No.
TIME FILED

TELEGRAM

CHECK

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

BLANK PATENT APPLIED FOR.

Send the following message, without repeating, subject to the terms and conditions printed on the back hereof, which are hereby agreed to.

Cleveland, Ohio, Dec. 2, 1914.

Mr. Albert White,

14 Elm St.,

Pittsburgh, Pa.

Will arrive home Thursday noon. Meet me at depot.

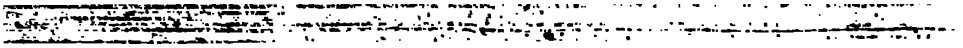
Henry White.

ENVELOPE ADDRESSED

Mr. Frank Lape
180 Congress Street
Albany
N. Y.

ACCOUNT OF A SCHOOL ENTERTAINMENT

An enthusiastic meeting of the Parent-Teacher Association of School Three was held last evening at the school building. The meeting was opened with victrola selections of a high order. Principal W. C. Smith of the Central School gave an instructive talk on "Cumulative Community Coöperation." A musical and literary program followed. The principal of the school congratulated the parents and teachers on the success of the meeting. At the conclusion of the program, refreshments were served.



ANSWERS

LESSON

1. Carriage Painting $12.25; $3.06; 38¢.
2. Harness Making $25; $2.50; .3125.
3. Horseshoeing $971.04.
4. Wagon Making $50.85; $2.82.
5. Automobile Overhauling Gained $6.75.
6. Steam Vulcanizing $82.30.
7. Livery Business $2040.50; 1 yr. 9 mo. 26 da.
8. Garage Business $416.50.
9. Automobile Dealing $715; $102.14.
10. Bicycle Dealing $808.80.
11. Express Business $800 counting 39 weeks.
12. Barber Business $71.40; $17. 85; $2.97; .85; .1416.
13. Shoe Shining $1073; $708.
14. The Chinese Laundry $1216.14.
15. Grocery Trade $351.90.
16. Butchering $444.
17. Ice Business $1825.
18. Spring Water Industry $123.50.
19. Hotel Business $202.
20. The Restaurant $165.42.
21. Garbage Collecting $283.
22. Construction Work $1164.

LESSON

23. Road Building $2438.39.
24. Stone Quarrying $4600.
25. Coal Mining 64.22 days.
26. Coal Dealing $373.69.
27. Oil Trade $552; $48.
28. Shirt Industry $313.50; $2475.
29. Collar Industry $4875.
30. Clothing Store $4521.75.
31. Shoe Trade $2568.
32. Cabinet Making $7.20, or 15¢ an hour; 60¢.
33. Wood Sawing $41.31.
34. Sawmilling $119; $2.12; 50¢.
35. Cordwood Industry $312; $2; $27.
36. Lumber Industry $5553.
37. Corn Husking $149.75.
38. Steam Threshing $619.
39. Hay Pressing $648; $3.85.
40. Feed Industry $444.
41. Milk Industry $856.
42. Cheese Making $50.22; $41.29.
43. Bread Making $6.30.
44. Farming $192; $2304.
45. Maple Syrup Industry $11.
46. Truck Gardening $100.
47. Wheat Raising $322.40.
48. Corn Raising $169.04; $211.30.
49. Potato Raising $62.

LESSON

50. Sugar Beet Industry $436.50; $21.82.
51. Strawberry Raising $429.77.
52. Tea Raising $192.24.
53. Coffee Raising $592.79; roaster, $938.60.
54. Fruit Growing $17.70.
55. Rice Growing $143.40.
56. Peanut Raising $388.50; gained $72.
57. Poultry Industry $133.50.
58. Oyster Industry $3896.25.
59. Sheep Raising $29.
60. Hog Raising $267.40.
61. Stock Raising $219.40 loss.
62. Cotton Raising $5.55 gain.
63. Silk Industry 96 trees; $16.61.
64. Rubber Industry $1296; $8.31.
65. Photography $27.55; 18¢; 15 pictures.
66. Dentistry $3802.
67. The Doctor $1979.80.
68. The Musician $468.
69. Value of a School Day $9.19.
70. School Woodworking $1.50; 20; 6 weeks.
71. School Gardening $1.30.
72. Purchase of a School Victrola 132 persons; 10¢.
73. The Athletic League $90.33.
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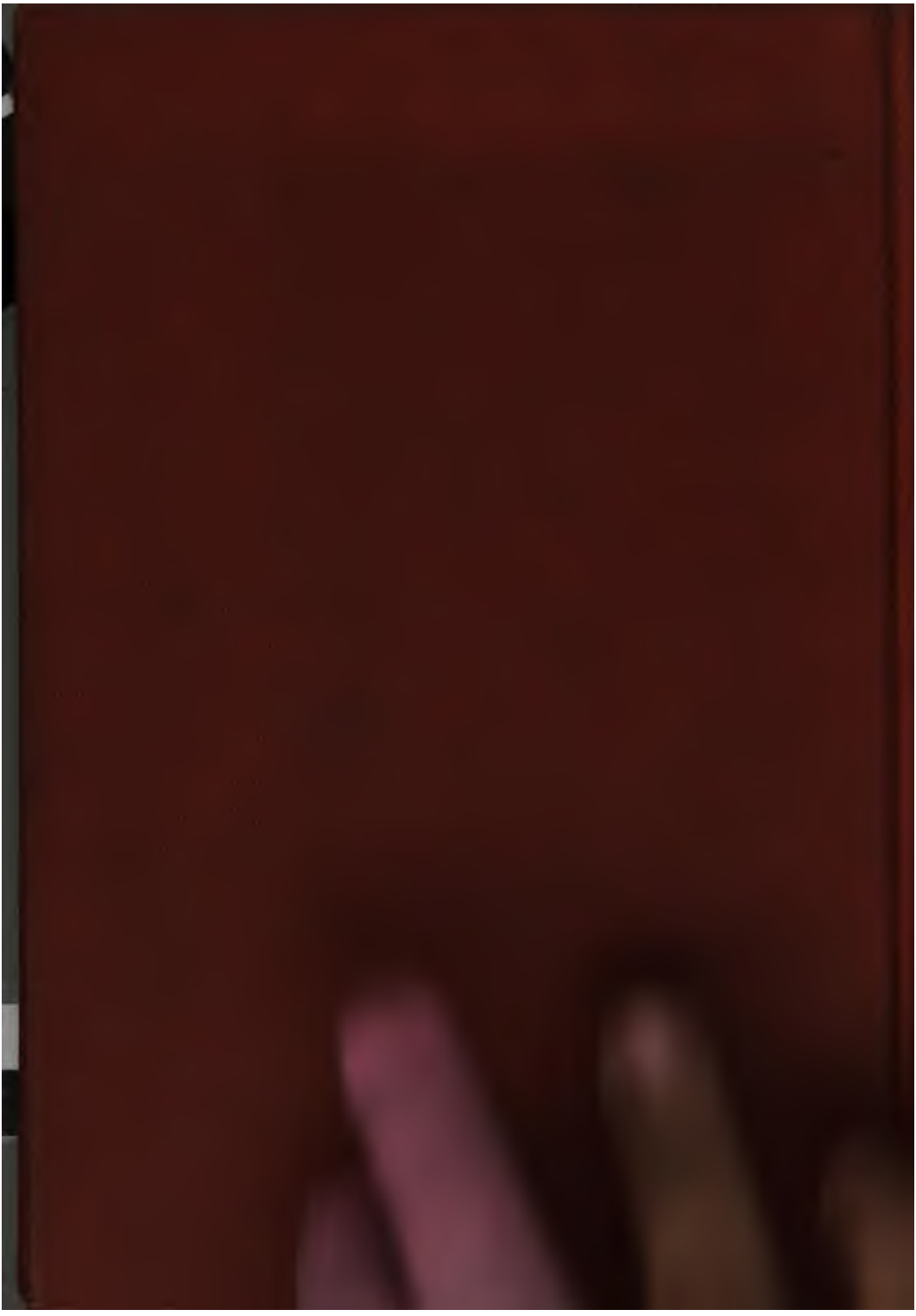
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